AMERICAN RAILROAD JOURNAL,

AND

IRON MANUFACTURER'S AND MINING GAZETTE.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED AT 105 CHESTNUT ST. PHILADELPHIA.

Saturday, March 11, 1848.

CHILLED RAILROAD WHEELS. — THE undersigned, the *Original Inventor* of the *Plate Wheel* with solid hub, is prepared to execute all orders for the same, promptly and faithfully, and solicits a share of the patronage for those kind of wheels which are now so much preferred, and which he originally produced after a large expenditure of time and money. A. TIERS.

Point Pleasant Foundry,

He also offers to furnish Rolling Mill Castings, and other Mill Gearing, with promptness, having, he believes, the largest stock of such patterns to be found in the country. A. T.

Kensington, Philadelphia Co., March 12, 1848. 11tf

☞ To the patrons of the Journal, who have remembered us, and *remitted* the *current* year's subscription for the Journal, we desire to tender our thanks; and to those who have *not yet* done so, we make the *earnest* request that they will do it *without delay*—and more especially so where *arrearages are due*, as it is *out of the question* to make it what it *should be*, and publish it *regularly*, unless its limited subscription is paid *punctually in advance*; as its *annual* losses, from *delays* of payment, *changes* of residence, *discontinuance* without paying arrearages, and *death* of subscribers at a *distance*, has been nearly equal to the cost of *paper* on which it is *printed*—and *merely* for want of *attention*—not for *lack* of *ability*, or disposition—of the subscriber to pay *annually in advance*; necessity, therefore, requires us to call for, and to expect the payment hereafter in advance, that our undivided attention may be given to its improved management.

A Word with the Railroad Interest, and the Profession Having it in Charge, etc., etc.

Is it desirable to have a periodical devoted to this *mighty* and *growing* interest? *If* it is desirable to have a work, in which its progress may be noted, its improvements recorded, and *from* which its *history* may be written, it is but *just* that it should be *liberally* sustained, by an *extensive* circulation, and reasonable advertising patronage; to enable it to keep pace with the improvements of the age.

If *this* Journal is not what is desired, and *cannot be made* what it *should be*, as the organ, and medium of communication, of the *Railroad, Iron Manufacturer's*, and *Mining interest* of the country, let it be discontinued—and *forgotten; but*, if it occupies a position of *usefulness*, and may be made to contribute to the improvement of these vast interests of the country, by an extension of its circulation, is it not the interest of every person whose pursuits are connected with them, or whose capital is invested in them, to aid in extending its circulation? and the *duty* of every *engineer*, and *mackinist*, whose business prospers when they prosper, *not only* to subscribe *to*, and advertise *in* it, but also to communicate to its pages, at the *earliest period*, such improvements as they may make calculated to advance the cause and benefit themselves? We think it is, and therefore call upon them, one and all, to do their part in *contributing to its pages*, in *extending its circulation*, and thus making it useful to themselves, and to us—as well as to those great interests to which it is devoted.

If *each present* subscriber, *railroad company*, and *manufacturer of railroad machinery* in the country, were to send in but a *single additional* subscription, it would enable us to employ able assistance in its editorial department, and to visit, during the current year, most of the railroads and manufactories in the country, and to become personally acquainted with them, and thus understand them better than it is now possible to do.

The Iron Trade.

The Wyoming Iron Works, at South Wilkesbarre, have, it is said, suspended operations. The Cumberland Mountaineer says that "the present proprietors of the Mount Savage iron works have concluded not to put them in operation, in consequence of the recent reduction in iron." It will be recollected that these works were not long since sold to eastern capitalists. It also states that the Lena furnace has suspended operations for want of funds.

Damages Awarded for Loss of Life and Injury by Railway Accidents in France.

In a recent accident on the Orleans railway, the Correctional Tribunal of Orleans refrained from awarding damages to the persons injured until it should be able to make inquiries. The parties not having been able to come to an arrangement with the company, the tribunal, in its sittings a few days ago, was called on to decide. One of these parties was a female named Garbe, of Orleans, who received some violent contusions; the company had offered her 500f., and the tribunal awarded her 1000f. The other party was the widow of a man named Perrin; the man having died after having both legs which were crushed, amputated. The tribunal awarded the widow and her children 15,000 francs, 14,000f. of which are to be placed in the public funds, the interest to be allowed to the widow for life, and at her death the fund to be divided among her three children. On the marriage of her two daughters, they are each to receive fortunes of 1500f., the same as their father allowed to the eldest girl, and the interest paid to the widow is to be reduced in proportion to the amount withdrawn. Finally, if the widow shall marry again, she is only to receive a third of the interest on the 11,000f.

The Price of Pig Iron.

"An erroneous statement, says the Baltimore Sun of 23d ult., has been travelling the rounds of the newspapers, to the effect that pig iron has declined $20 per ton. A correspondent states that the recent advance of some $10 per ton in pig iron was caused by an accidental, and of course, temporary scarcity of the article in the principal cities of this country, continuing, as it was generally predicted, but a short time—say from about the middle of September till the close of January—during which time prices advanced from $30 to $31 to $40 per ton. The market price is now $30 to $31 for best Baltimore forge pig, so that the actual decline is only $10 per ton, being precisely the advance that, unfortunately for the iron interests of this country, occurred as stated above."

The rails for the Connecticut River railroad, says the Boston Post, cost $82 50 per ton. During the week ending 12th February, 1848, contracts were made for rails, deliverable in New York, at $52 50. This at 90 tons per mile, will reduce the cost of rails $2700 per mile below the cost of several lines recently laid down, being less than $5000 per mile for iron on the road. No lines have been laid down so low as the present rates since rails were made subject to duty.

New York and Erie Railroad and Pennsylvania Legislation.

This great work is progressing rapidly, though somewhat impeded for want of legislation in Pennsylvania. To us this state jealousy in relation to important works of internal improvement, in which nearly the whole country is directly interested—appears, to say the least of it, short sighted, if not illiberal. After great effort and delay, an act was granted by the Legislature of Pennsylvania—which secured very important advantages to her citizens—allowing the company to pass into, and for about thirty miles, through her territory, thus giving her citizens in that region, easy access to market, and greatly enhancing the value of their lands, and at the same time securing to them the privilege of connecting with it at important points—yet putting the company entirely into the hands of individuals, in acquiring the right of way through their lands.

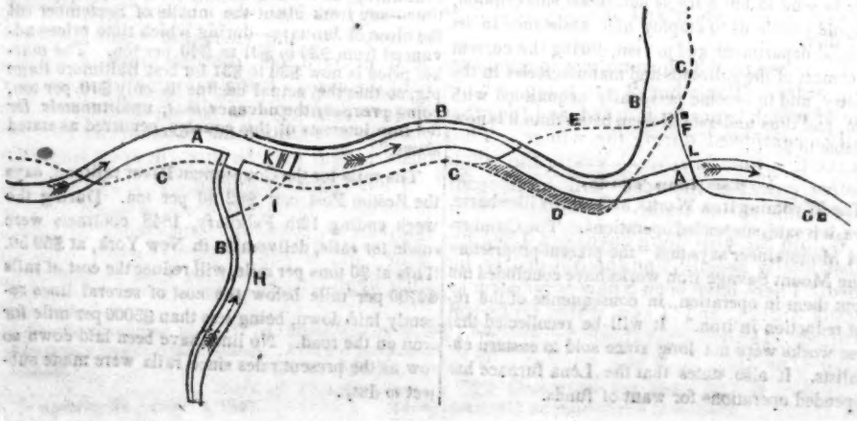
It is found that, by crossing into Pennsylvania at Port Jervis, as they are now allowed, and required, to do, they must encounter great difficulties in passing a bluff called the "glass house rocks," of about two miles in length, and from fifty to seventy feet in height, with the river directly at its base. Ice was found last year in those rocks in June, and they are unfit for walling—while the company is prohibited from throwing them into the river, as the obstruction may cause damage to the works of the Del. and Hudson canal on the opposite side. To avoid this difficulty, the company ask the privilege of crossing the river above the bluff, but they are opposed by a portion of the people below, on the ground, we understand, that when they wish to connect with it they will have to construct their road along this difficult pass at their own expense. In reply to this, the company engage—and we think it is all that should be asked of them to construct a branch from Port Jervis, and a bridge across the river, and meet them on their own ground, as would be the case were the present chartered line to be constructed.

When we recollect that this part of Pennsylvania is in a great measure secluded from other portions of the state, and from market—though its settlements were commenced nearly a century ago, they have made comparatively very little progress, while the *west*, not only of these two states, but also of the *United States*, has been redeemed from a wilderness, and filled with the population of an empire—it would seem that every facility possible would have been granted to a company that came with such benefits and blessings in their hands. Indeed it is said so secluded has this region been, that lands and farms once in cultivation, are now grown up to forest, even though the soil is good, and the resources great, merely for want of roads; whereas, now a great work is commenced, and in fact nearly completed, which will remedy all this, and bring the great flood of business and travel down from the west, to meet the current from the east, and thus give life and energy to business, and value to their lands—yet what do the people of Pennsylvania do in return for these benefits? Nothing apparently to aid, but rather exact terms which are a serious obstacle to its progress.

In order to place the subject in a clear light, we present the following sketch in outline, showing the relative position of the Delaware river, A A—the Delaware and Hudson canal B B B—the New York and Erie railroad, as *chartered*, C C C—the glass house rocks, desired to be avoided, D—the proposed new line of railroad to avoid the rocks E,—Port Jervis F—Millford, Pa., G—the Lackawanna river H—new line of Del. and Hudson canal, to cross the Del. and Lackawanna rivers by *suspension aqueducts*, now partly constructed, I—dam across the Delaware river, which has hitherto connected the canal in New York with that in Pennsylvania, K—and the *proposed* branch and bridge, to connect any Pennsylvania railroad which may be constructed to this point, with the New York and Erie road, L.

The difficulties with the land holders have all been overcome by amicable purchase—and in some instances, at a price which makes them *imagine* their lands *exceedingly* valuable! and the canal company presents no further obstruction to the progress of the work, therefore it is *very* desirable that the present application of the company should be granted, and speedily too, that the works may progress, and be completed at the earliest possible period.

We do not, by any means, desire to be considered as casting reflections in these remarks, or to charge intentional illiberality upon any one, but merely to present the subject as it strikes us, and to urge a *liberal* course upon those who have the power to *aid*, or *retard* this great work, which has, for so many years, had to contend with strong prejudices, and powerful rival interests at home; but which will yet, in spite of all opposition and prejudice, scatter blessings, and comforts, and wealth, upon thousands of those who have so long opposed it, and even *still* oppose it. It has been, however, like a mighty giant, bound with many thongs, powerless for a time, yet, by unyielding efforts, finally rises, and proceeds on his course, not, however, like the giant, overthrowing his opponents, but dispensing benefits, and even wealth to those who refused it even the right of way.



Southwestern Railroad.

We learn by the Savannah papers, that the Southwestern railroad from Macon, is in rapid progression; $259,000 cash subscriptions have been made A Mr. Dean has taken seventy-five thousand dollars of the stock, and he with others has contracted for the completion of the first fifty-two miles of the road, from Macon to a point beyond Flint river; which portion will be done by the fall of 1849.

Iron Steamer Courier.

We have been furnished with an account of the extraordinary performance of this boat by Mr. Thomas Prosser, of New York, who was on board of her when her trial trip was made.

Performance of the English Iron Steamboat Courier, in an Experimental Trip on the Thames, below London, October 29th, 1847.

The "Courier" was built by Mare, for the new South West steam company; she is elegantly modelled, and intended to ply between Southampton, Gurnsey, and the adjacent ports; her burthen is 440 tons, length 170 feet, and breadth of beam 23 feet. She is fitted with Morgan's improved feathering paddle wheel, (Cave's) 20 feet diameter over all, 12 floats to each wheel 8 feet by 3 feet, and the wheels have an immersion of 3 feet 4 inches. The engines are direct action, of the annular ring piston kind, manufactured by the patentees, Messrs. Mausdlay, Sons & Field; the pistons are of equal area to ordinary ones of 52½ inches diameter, and the length of the stroke is 3½ feet, which they are calculated to repeat 40 times per minute, and thereby to give the vessel a velocity of 18 miles per hour through the water. The boilers are of the tubular kind, and were blowing off steam under a pressure of 16 lbs., during the whole trip, while the vacuum amounted to 26½ inches. The aggregate power of the engine is equal to 450 horse, although nominally but 180 horse power.

The trip was from the Brunswick wharf at Blackwall to the Nore, rounding the "Mouse" light and back, a distance of 105 2-3 miles, which was performed entirely under steam in 5 hours 55 min., or about 17 5-6 miles per hour. From the wharf to the "Mouse" was done in 3 hours 20 min., and the return trip in 2 hours 35 minutes. At starting there were many obstructions in the river, so that for more than an hour the wheels never exceeded 36½ revolutions per minute, on that account. She accomplished the first 21 miles with, and in the bottom of the ebb tide, in 1 hour 13 minutes, when off Gravesend, with the obstructions above mentioned, the next 23 miles was done in 1 hour 32 minutes, against the young flow tide; we were then off the Nore floating light, and making from 38 to 40 revolutions per minute; the next 8 5-6 miles was done in 35 minutes.

On returning a head wind sprung up, and which continued to increase, but of course the flow tide was now with us; the 8 5-6 miles back to the Nore floating light, was done in 28 minutes, and the next remaining 44 miles in 2 hours 7 minutes. Thus the average speed through the water was outward 15 5-6, and returning 20½ (nearly) miles per hour. The velocity through the water, was at the five periods noted, 17½, 15, 15½, 18 9-10, and 20½ miles per hour. The Thames rule for velocity is, I believe, to deduct one mile per hour when the tide is for, and add four miles per hour when the tide is against the boat, which brings out the velocity, through still water, over 19 miles per hour, omitting the first 21 miles for the reason before stated.

From Gravesend church to Blackwall, a distance of 21 miles, was said (and I have no reason to doubt

the correctness of the assertion,) to have been done in 59 minutes, but about this time the writer was specially engaged below, discussing with the gentlemanly engineers, Messrs. Field and Maudslay, some very fine turtle soup, and various other luxuries, which their liberality had supplied, to the gratification of a very select party of gentlemen invited to witness the performance? J. A. R.

Columbia Railroad.

Annual Report of the Superintendent of Motive Power for 1847.

The following report of William English, Esq., superintendent of motive power, will give an idea of the amount, increase, and cost, of the business done upon the Columbia railroad. This road, it will be recollected, is a State work, is 82 miles in length, from Philadelphia to Columbia, where its freight is delivered to, and received from, the State canals, and the Wrightsville, and York and Baltimore, and Susquehannah railroad. Its motive power is owned by the State, and worked by its agents, while the cars are owned, and the freighting is done, by individuals and firms: the State keeping the road and machinery in order, and collecting tolls for hauling the cars, and the owners of the cars collecting the freights.

We have heretofore seldom received the annual reports of the State agents in Pennsylvania, and cannot therefore compare the receipts and expenses of 1847 with former years, except 1846 given herewith; but we are led to believe that, comparatively speaking, the public works have recently been more economically managed than formerly. The tabular statement, showing the number, cost, performance, condition, etc, of the locomotives, is somewhat condensed, and differently arranged from that given in the report, yet it gives all the important facts in less space.

We have received, and shall give in our next, the report of the superintendent of the Portage road.

REPORT.

To the Board of Canal Commissioners of the Commonwealth of Pennsylvania:

GENTLEMEN: I have the honor to submit the following report and accompanying documents, showing the operations and condition of the motive power department of the Columbia and Philadelphia railway, from Jan. 20, to Dec. 1, 1847, during which time it has been under my charge, together with the receipts and expenses for the whole fiscal year, viz: from Dec. 1, 1846, to Dec. 1, 1847.

The amount of business done upon this branch of the public improvements during the last year, largely exceeded the calculations made at its commencement. As a consequence of this, the expenditure also exceeded the estimates made for the service of the year; but, as the statements will show, not in proportion to the amount of business.

During the months of January and February, and the two weeks of March preceding the opening of canal navigation, the transportation exceeded, in nearly a threefold degree, what it had ever been for the same period. But being confined to flour, grain and the products of the farm generally—all paying a low rate of toll—and the cars returning empty—also at reduced rates—the profits of the road were not as large as the quantity of business would lead the ordinary observer to expect.

The winter months have been occupied heretofore, in repairing the locomotives, and putting them in complete order for business on the opening of canal navigation in the spring. During the last winter, however, this course was rendered impracticable, nearly the whole force being required to accommodate the trade passing over the road. This caused much additional expense, as trifling defects in the machinery, which could have been repaired at small cost, were permitted, from necessity, to increase in magnitude, until thorough and expensive repairing became indispensable.

The operations of the motive power department since it was placed under my charge, have went on with much regularity and dispatch. Very few complaints have been received of detentions to business, or negligence on the part of officers, engineers or others employed on the road, and those few, of such a character as to admit of a speedy remedy being applied, and their recurrence guarded against. It is believed that the transportation has been done to the satisfaction of the forwarding merchants, and those doing business on the road generally.

It is a source of sincere felicitation that, in transporting such a large number of passengers and vast amount of freight, so few accidents have occurred, either to individuals or property. Those which have happened, can nearly all be traced to the negligence or carelessness of the unfortunate sufferers, while the limited number affords the best evidence of the skill and carefulness of those having charge of the locomotives, and the agents of the cars.

At the date of the last report there were 39 locomotives on the road. Two of that number, the "Lancaster" and "Columbia," were sent, on the 12th of March last, in obedience to the instructions of the board, to the Allegheny Portage railroad. Two new engines, the "Chester" and "Lewistown," contracted for the previous year, were added to the stock—one in March and the other in the early part of April—still making the number of locomotives on the road 39. Of this number, 36 were in active operation during part of the season—the remaining 3 being a portion of those abandoned for several years past—and for a period of more than two months, the trade was so pressing as to require 6 of the locomotives to perform double service, 3 from each end making two trips per day.

There are now 37 locomotives in good running order. The other 2 are being re built, one of which is nearly finished, and the other will be completed during the winter. Thus for the first time in several years, the whole motive power of the road will be in readiness for the spring trade.

Within the year there have been 4 engines substantially re-built, and the 5th nearly finished. There have been 8 new engine trucks, 7 tank trucks, and 3 new water tanks constructed. Houses have been built over 12 engines, making the whole number now covered 25; 8 of the engines have had copper flue sheets inserted in the fire box, and 5 have chilled driving wheels, both of which improvements, though costing more at first, have proved to be valuable and economical. All the engines have now inside bearings on trucks and tanks, and nearly all have first quality Wilmington manufactured wheels. The improvement in fitting up the axles, giving inside bearings, has been fully and satisfactorily tested—no axle thus fitted up, having broken within the year.

The two new engines, ("Chester" and "Lewistown,") cost $7,000 each, and are of the same class as the "Atlas," for the performance of which, I beg leave to refer to the report of the superintendent for 1845. In capacity, they are fully equal to the "Atlas," and exceed that engine in speed and ease of running. I regret to state, however, that soon after they were put in operation, some defects were discovered in the iron from which their fire boxes were made, and also in some of the castings, which rendered their immediate repair necessary. These repairs were promptly made, and new castings furnished by the manufacturer without charge to the Commonwealth. But, notwithstanding they have been thoroughly repaired and are now in good condition, I have, from a sense of duty, estimated their present value at only $6,000 each—their probable durability forming the basis of the estimate.

The present value of the locomotives on the road, together with much other interesting information, will be found in statement No. 5. I refer with much pleasure to that statement, as a faithful exhibition of the present condition of the motive power and its performance during the year. The table was compiled from accurate data and personal observation, and may be relied upon as being correct in all its details.

Early in the year it was observed, that the boilers of the "south stationary" engine at the inclined plane were in an unsound and dangerous condition. They had been in use over 13 years, and the safety of the workmen at the plane, as well as the business requirements of the road, made their renewal indispensable. New boilers were, therefore, furnished, as were also new pumps, feed pipes, castings, etc. To improve the power of the engine, the boilers were increased in length 10 feet, and the engine house, to admit the improvement, had to be extended the same distance. This expense, amounting in all to nearly $2,000, was not anticipated in the estimates for the year, and would not have been incurred, but from the pressing necessity of the case. It is a valuable improvement however, and places the machinery at the plane in a condition adequate to the heaviest business that may be brought upon the road.

I have caused, during the year, some improvements to be made in the machinery of the Parksburg shops. A large and improved lathe, and a patent fan or blower, with all their appurtenances, have been added. The first of these will afford increased facilities to the machinists in the performance of their work, while the latter will effect a sensible reduction in the expenses of the blacksmith shop. I have also introduced a large hydrant with capacious heavy lead pipe, stop cocks,

etc., by which the men are enabled to fill the boiler of a locomotive in 10 minutes, instead of requiring three hours, as heretofore, thro' the tedious process of a small hose. The hydrant is also supplied with large hose, affording much greater security to the establishment in the event of fire. The cost of all these improvements is about $1,200.

On the opening of canal navigation last spring, there were 14 sets of section boat trucks in seemingly good order. Seven of of these were brought from the Portage road in 1843, one built at Columbia the same year, three bought from the Reliance line, and three built at Columbia in 1845.

Nearly all the damage on the road during the year was caused by the breaking down of the trucks under the section boats. Each year the builders have added to the weight of the boats, and during the last year, the average weight of loading was much increased, owing to the great pressure of business. The dead weight, therefore, has been constantly increasing, while the ability of the trucks to sustain it has, from decay and other causes, been gradually diminishing. Of the 14 sets with which the business of the spring was commenced, only three (those last built at Columbia) are in a condition for service next season. All those which came from the Portage railroad will require thorough repairing; and those bought from the Reliance line will require eight new trucks and three new cradles entire, besides other extensive repairs. One set has been entirely destroyed.

Experience has shown that good four inch axles, with at least three inch journals, are essential to the safe transportation of section boats over the road, and acting upon this conviction, I have, within the year, replaced 16 that had broken, with axles of that description.

If the transportation of section boats over the Columbia and Philadelphia railway is to be considered as a part of the settled policy of the State improvements, it will be necessary to commence the rebuilding and repairs of the trucks immediately, as it will require the entire winter to put the requisite number in proper condition to receive the boats on the opening of canal navigation next spring.—The materials, especially the timber, which it will take some time to cut and prepare, should be ordered at once; and I would earnestly recommend, as a matter of safety, as well as economy, that all the three inch axles be abandoned, and sold or used in the State shops, as may appear most advisable, and that axles of four inches diameter be substituted.

There are now, belonging to the trucks, 224 axles. Of these there are

Of 3 inches diameter	129
" 3½ "	79
" 4 "	16
Making	224

The cost of these repairs, including timber, iron, labor, etc., will amount to $5,653 22, and is included in the general estimate for motive power expenses for the ensuing year. For the details of the cost, I respectfully refer to the paper marked Appendix, No. 1, attached to this report.

The following shows the receipts and expenses of the trucks for the past year:

Amount received for the use of trucks as per reports of collectors	$9,606 12
Amount paid for repairs and maintaining trucks	6,048 70
Excess of receipt over expenditure	$3,557 42

That portion of the business of the Reading railroad, passing over the Schuylkill level from the bridge at Belmont, continues to require the constant services of the extra locomotive placed there last year.

The temporary repairs to the three locomotives on the level is done, as heretofore, at the manufacturing establishments in that vicinity. This course is pursued as a matter both of economy and convenience, as the time and expense of sending an engine to Parkesburg would exceed the cost of the repairs required. All other repairs to engines are done at the State shops.

In stating the expense of maintaining the motive power the past year, no item, it is believed, either paid or due, has been omitted. The desire has been to present to the board a faithful account of the condition and operations of that department, its cost and profits. The expenditure has been heavy, but not more so than the great increase of business, during the first 10 months demanded and justified. It is proper to remark, too, that much of the expense was incurred in anticipation of the usual, if not an increased business during the months of October and November; but the disastrous freshet, the first week in October, by which the canal was partly destroyed and the principal business of the road cut off for the remainder of the year, defeated those reasonable expectations—leaving but little remuneration for the expenses incurred.

But for that catastrophe the receipts would have been increased full $90,000, while the additional expense (everything, except fuel, oil and the pay of engineers and firemen being previously provided and paid for,) would not have been more than from eight to ten thousand dollars, leaving a profit of at least eighty thousand dollars, which would have been added to the earnings of the road.

It was confidently anticipated on the 1st of October, that the road would yield a profit, for the year, of full 10 per cent. on its cost of four million dollars. Under all the disadvantages alluded to, the clear profit has been nearly eight per ct.; a much larger amount than was ever before realized.

The experience of the past year has fully demonstrated the capacity of the road, for a much larger amount of trade than was ever anticipated being transported over it; and with a few new and improved locomotives, in lieu of some of the old and expensive machines now in use, such increased business could be done at a much reduced cost.

It is confidently expected that an extensive business will be brought upon the road on the opening of the canal navigation next spring; and in view of this, it is respectfully submitted to the board, whether arrangements should not be made at once for procuring at least two additional locomotives.

The following table will show the amount of business done, and the cost of motive power —including all payments made and bills due for the year 1847, and also for 1846:

Year.	No. of trips by locomotives	Number of cars hauled.	No. of passengers.	No. of tons of freight.	Cost of motive power.	Receipts for motive power.
'47	8,191	111,545	65,751	234,229	175,819 99	299,602 62
'46	6,828	83,826	58,348	139,530	157,846 23	250,757 90
In.	1,363	27,719	7,503	94,699	$17,973 76	$48,844 72

For the details of receipts and expenditures and for the condition, operations, etc., of the motive power department for the year ending Nov. 30, 1847, and the estimates for the year 1848, I respectfully refer the board to the annexed tabular statements:

Statement, No. 1, shows the account of the superintendent with the State treasurer.

Statement, No. 2, shows the receipts and expenses of motive power from Dec. 1, 1846, to Dec. 1, 1847.

Statement, No. 3, shows the detail of expenditure for motive power from Jan. 20, to Dec. 1, 1847, and the estimates for 1848.

Statement, No. 4, shows the value of the stock on the road, Dec. 1, 1847.

Statement, No. 5, shows the value, condition, location, performance, etc., of the locomotives, Dec. 1, 1847.

Statement, No. 6, shows the gross amount of receipts and expenses, including motive power and repairs, and the net profits from, Dec. 1, 1846, to Dec. 1, 1847.

All which is respectfully submitted.

WM. ENGLISH,
Supt Mo. Power Phila. & Col. R. R.

Superintendent's Office,
Parkesburg, Dec. 1, '47.

STATEMENT, No. 1,
Showing the Account of the Superintendent with the State Treasurer.

Amount drawn from the treasurer of the canal commissioners from Jan. 20, to Dec. 1, 1847		$166,300 00
Amount paid for expenses of motive power, from Jan. 20, to Dec 1, 1847	$139,534 17	
Amount paid for bills due from Dec. 1, 1846, to Jan. 20, 1847	7,877 85	
Amount paid on debts due prior to Dec. 1, 1846	4,887 88	
Amount paid M. W. Baldwin for two new locomotives and tenders	14,000 00	166,299 90
Amount due commonwealth		10

STATEMENT, No. 2.
Showing the Receipts and Expenses of Motive Power, from Dec. 1, 1846, *to Dec.* 1, 1847.

Amount of motive power tolls, as per reports of collectors		$299,602 62
Amount paid by W. English from Jan. 20, to Dec. 1, 47.	139,534 17	
Amount paid by W. English on account of expenses accruing between Dec. 1, '46, and Jan., 1847	7,877 85	
Amount paid by E. F. Gay, from Dec. 1, 1846, to Jan. 12, 1847	13,929 10	
Amount due as per statement No. 3	14,478 87	
		175,819 99
Excess of receipts over expenses		123,872 63

NOTE.—The sum of fourteen thousand dollars, paid for two locomotives during the present year, is not included in the above expenses, as the cost of such machines, they being permanent property, cannot be justly charged to any one year.

STATEMENT, No. 3,

Showing the detail of expenses of motive power from Jan. 20, to Dec. 1, 1847.

Object of Expenditure.	Am't paid.	Am't due.	Total.	Estimate for 1848.
Parkesburg shops	$8,910 62	$882 01	$9,792 63	$11,000 00
Engineers of locomotives	13,643 57	811 00	14,454 57	14,000 00
Firemen	9,727 09	564 38	10,291 47	10,000 00
Schuylkill plane	10,916 31	836 87	11,753 18	10,000 00
" level	5,047 71	539 25	5,586 96	6,000 00
Columbia depot	4,940 84	438 95	5,379 79	5,500 00
Moving and inspecting wood	2,908 96	213 62	3,122 58	2,500 00
Watermen	2,047 30	211 15	2,258 45	2,300 00
Sawing and splitting wood	2,423 39	168 75	2,592 14	2,400 00
Superintendent and clerk	1,712 00	180 00	1,892 00	2,190 00
State agents	2,958 44	180 00	3,138 44	3,400 00
Horse power	5,287 89	458 92	5,746 81	6,000 00
Water companies for water	450 00	.....	450 00	800 00
Oil	5,383 90	.....	5,383 90	5,000 00
Wood	27,866 85	2,619 60	30,516 45	31,000 00
Materials for repair of engines	7,219 85	1,001 22	8,221 07	8,000 00
Stationery and printing	65 69	75 75	141 44	200 00
Castings	1,832 25	142 43	1,974 68	1,500 00
Repairing engines at manufacturing establishments	964 27	76 58	1,040 85	1,000 00
Coal	17,122 28	5,023 49	22,145 77	18,000 00
Rope for Schuylkill plane	1,551 08	.....	1,554 08	4,500 00
Rents	158 00	.....	158 00	400 00
Water stations	92 35	.....	92 35	540 00
Miscellaneous	276 73	.....	276 73	200 00
Trucks, repairing and maintaining	6,023 80	24 90	6,048 70	8,000 00
	139,534 17	14,478 87	154,013 04	154,430 00

STATEMENT, No 4.

Showing the value of stock on the road, December 1, 1847.

Wood	$2,684 50	Estimated value of stock Dec. 1, 1846.	$206,644 00
Mineral coal	8,000 00	Less two locomotives sent to Portage railroad	7,000 00
Materials at shops	19,856 00		199,644 00
Seventeen cars	3,060 00		
Present value of locomotives	188,500 50		
	222,100 50	Increased value of stock, 1847	22,456 50

NOTE.—In the above estimate of stock, the trucks, stationary engines, machinery, and tools in the Parkesburg shops, and other stationary property, are not included.

STATEMENT, No. 5.

Showing the condition of the locomotives, with their value and performance in 1847.

	Names of Locomotives.	Manufactured	By	Tons w'ght.	Tons power	Driving axles.	Original cost.	Last year valuation,	Present value.	Miles ran Dec. 1,46 to Nov. 30,47.	Condition, Nov. 30, 1847.
1	Bald Eagle	Mar. '37	Eastwick & Co.	10½	120	str'ght.	$7,000	$4,600	$5,000	15,132	best order.
2	Telegraph	April '37	"	10½	120	"	7,000	5,000	5,000	27,846	"
3	Enterprise	May, '37	"	10	108	"	7,000	4,600	4,600	13,728	good order.
4	Pennsylvania	Jan., '35	M. W. Baldwin	10	96	crank,	6,317	4,300	4,400	26,052	"
5	Virginia	Feb., '37	"	10	96	"	7,000	4,400	4,400	21,996	"
6	Brandywine	Oct., '35	"	10	96	str'ght,	6,400	4,400	4,400	21,996	"
7	Juniata	Sept. '35	"	10	96	"	6,400	4,400	4,400	18,018	"
8	Philadelphia	Nov. '34	"	10	96	crank,	6,317	4,600	4,600	17,862	"
9	Schuylkill	April '35	"	9½	96	"	6,317	4,400	4,400	19,500	"
10	West Chester	Jan. '37	"	9½	96	"	7,000	4,400	4,200	3,354	"
11	Susquehanna	Feb. '35	"	9½	96	"	6,317	2,000	3,500	.....	being rebuilt.
12	Lancaster	June, '34	"	10	96	"	5,850	4,000	.....	546	sent Mar. 11.
13	Columbia	Sept., '41	Dotterer & Co.	8½	72	str'ght,	7,500	3,000	.....	.....	"
14	Cameron, S.	Mar. '39	Wm. Norris	10½	132	"	7,500	5,000	5,000	14,352	good order.
15	Penn, Wm.	Oct. '35	"	9½	100	"	6,000	4,400	4,400	13,728	"
16	Delaware	May, '41	Sellers & Sons	10	96	"	6,500	4,300	4,300	13,572	"
17	Atlas	May, '45	M. W. Baldwin	17	228	"	6,500	6,000	6,000	11,232	"
18	Chester	April '47	"	17	228	"	7,000	.....	6,000	11,154	"
19	Lewistown	Mar. '47	"	17	228	"	7,000	.....	6,000	10,296	"
20	Clarke, J.	April '39	"	13½	132	crank,	7,500	5,000	5,000	20,748	"
21	Conestoga	Feb. '47	"	13½	132	"	7,500	3,200	5,000	7,410	"
22	Downingt'wn	Aug. '47	"	13½	132	"	7,500	5,000	5,000	17,706	"
23	Gay, E. F.	Mar. '47	"	13½	132	"	7,500	5,000	5,000	19,500	"
24	Indiana	April' 47	"	13½	132	"	7,500	5,000	5,000	21,216	"
25	Hubley, E. B.	April '39	"	13½	132	"	7,500	3,000	3,500	.....	being rebuilt.
26	Mississippi	May '37	"	13½	132	"	7,500	4,700	4,700	20,904	good order.
27	Montgomery	May '37	"	13½	132	"	7,500	5,000	5,000	18,720	"
28	Octorara	April '37	"	13½	132	"	7,500	4,600	5,000	12,870	best order.
29	Parkesburg	Mar. '37	"	13½	132	"	7,500	5,000	5,000	13,728	"
30	Pequea	April '37	"	13½	132	"	7,500	3,000	5,000	.....	"
31	Wisconsin	May '37	"	13½	132	"	7,500	4,300	4,800	19,422	good order.
32	Buchanan, J.	Mar. '39	H. H. Campbell	13	132	str'ght,	7,500	5,000	5,000	19,578	"
33	Jackson, A.	"	"	13	132	"	7,500	5,000	5,000	18,564	best order.
34	Porter, J. B.	"	"	13	132	"	7,500	5,000	4,900	21,060	good order.
35	Keys, H.	May '40	Pennell & Co.	12½	132	"	7,500	5,000	5,000	20,514	best order.
36	Farmer	Oct. '36	Wm. Norris	10½	132	"	6,300	5,000	5,000	9,594	good order.
37	Snyder, S	Mar. '39	"	10½	132	"	7,500	5,000	5,000	18,018	"
38	Keim, G. M.	April '40	Dotterer & Co.	12	132	"	7,500	5,000	5,000	17,238	"
39	Muhlenberg	Nov. '39	"	12	132	"	7,500	5,000	5,000	17,160	"
40	Old Berks	July '39	"	12	132	"	11,000	5,000	5,000	20,982	"
41	Westn'rel'nd	Nov. '41	"	12½	132	"	7,500	5,000	4,000	20,748	"
							294,218	176,600	188,500	616,044	

STATEMENT, No. 6.

Showing the receipts and expenses on the Columbia and Philadelphia railway, from Dec. 1, 1846, to Dec. 1, 1847.

RECEIPTS.

Amount of railway tolls received, as per report of collectors		$268,047 58
Amount of motive power tolls received, as per report of collectors	299,602 62	
		567,650 20

EXPENSES.

For repairs of road from Dec. 1, 1846, to Dec. 1, 1847, as per statement, No. 8	70,195 45	
For maintaining motive power from Dec. 1, 1846, to Dec. 1, '47, as per statement, No. 2	175,819 99	
		246,015 44
		321,634 76
Deduct salaries of collectors, weigh-masters, etc		9,225 56
Net profits		312,409 20

NOTE.—The sum of $1,904 43, received for old materials sold, during the past year, has been paid to the collectors and accounted for at the office of the auditor general.

APPENDIX, No. 1.

Estimate for the repairs of section boat trucks, and for furnishing 129 axles four inches in diameter.

16,500 ft. oak timber a $20 per 1000 ft.				$330 00
11,000 lbs. hammered iron at 4½ cts. per lb.				495 00
4,160 "	cast	"	3 "	124 80
36,120 "	axles	"	5 (129 axles)	1,806 00
8,514 "	cast	"	3 (boxes etc.)	255 42
10,000 "	" (20 new wheels)		3 (500 lb. each)	300 00
Carpenter work				1,000 00
Fitting up 129 pair wheels and axles at $5.				645 00
Blacksmith work on trucks				500 00
Painting				200 00
Total expense				5,656 22

(To be continued.)

Railways and Political Reforms.

The editor of the Railway Record says, "We extract the following passages from a series of interesting papers, now in course of publication in the *Manchester Examiner*, under the title of 'The Autobiography of a Working Man:'"

Nothing occurred on my journey from London to Liverpool which I need remark upon, except that at Manchester I saw a railway, locomotive engines, and railway trains, for the first time. Upon the railway, not then out of the second year of its age, I proceeded to Liverpool. The opening of that railway is an epoch in the history of the world. In memory, I see my first whirl upon it standing so prominently out among other recollections that it seems like an epoch of my life. All sights which I had seen in London or elsewhere—the beautiful, the grand, the wonderful—shrunk into comparative nothingness when, after reaching Liverpool, I went into the country a week, in the neighborhood of Prescot, and saw (each day I sought to see it, each hour of the day I could have stood to see it again,) the white steam shooting through the landscape of trees, meadows, and villages, and the long train loaded with merchandise, men and women, and human enterprise, rolling along under the steam. I had seen no sight like that. I have seen nothing to excel it since. In beauty and grandeur the world has nothing beyond it. In wonder alone the electric telegraph outstrips the railway; but they belong to the one family of wonders. I used to stand and look at it, and dream as I stood;

and when I ventured to relate any of those dreams, people used to say that I was very dreamy indeed. Related now, that 15 years have passed, those thoughts would seem very sober realities.

The reform bill had just then passed into law. Some people saw no good in the reform bill, but much evil; some saw no good in the railways, but much evil; others saw no evil in either, yet not much good; the greater number saw boundless good in both. But many of those who saw boundless good in the reform bill, turned in the second, third, fourth, fifth, sixth, seventh, eighth, and ninth years of its existence, and did all they could by fair means and unfair means, by their own votes, and by their influence over the votes of others, to oppose the principles of the reform bill, and the faithful adherents of it; they promoted the political principles opposed to it, and supported its opponents because the boundless good which they expected to come out of it did not come in the second, third, fourth, fifth, sixth, seventh, eighth, or ninth years of its existence. The same order of minds who saw boundless good from the establishment of railways, and who did not see it come in the shape and within the time that they had expected it to come, would have put their backs to the locomotive engine, and would have prevented another train from starting, had they been strong enough. But the locomotive was too strong for them, and they wisely stood aside and allowed it to go on. The principles of political advancement have also become too strong for those who set their backs to them and pushed rearward; and wisely they stand aside, or, in their weakness, only hang on behind to pull back. As well may they pull behind to stop the railway engine, because the change it has caused upon old roads is disadvantageous to some of them, and because it has not realized for others all which they expected it at once to do, as to attempt to turn back the political machinery of national advancement.

To those who advocated the reform of 1832, it might be almost a triumph to have lived to see that it has done no harm. The opposition to it was not founded upon the probability of it doing no good, but on the certainty of its doing positive and irreparable mischief. He must be a bold reasoner, or a man too weak to reason, who says it has done no good. He must be a bolder or a weaker man, or one in whom both qualities are compounded, who says that the reform act has done evil. The first principle of magnitude—the greatest of all indeed, solved by the establishment of the Manchester and Liverpool railway, was this, that the innovation upon old customs was safe. The railways have proved that and much more. The greatest principle established by our experience of the reform act, which gave Manchester two members for the first time, is that innovation upon old customs of admitting a large number of the population to share in the privileges of the constitution is safe. The reform act has proved that and much more. * * The time when I first saw the railway uniting Liverpool and Manchester—spanning the bog where human foot could not tread, stands, as I have said, in memory, like an epoch of my life. I looked upon that most poetical and most practical of the grand achievements of human intellect, until people thought I stood and slept; and when they heard the dream they said it was very dreamy indeed. I should fear to tell the dreams which I have now beside the electric telegraph, and on the railways, and within the regions of the god-like inventors and makers of machinery. There is a time coming when realities shall go beyond any dreams that have yet been told of those things. Nation exchanging with nation their products freely; thoughts exchanging themselves for thoughts, and never taking note of the geographical space they have to pass over, except to give the battery a little more of the electric spirit, if the distance which the thought has to go be many hundreds of miles; man holding free fellowship with man without taking note of the social distance which used to separate them, except, perhaps, the lord (landed lord or cotton lord) shall use a little more of the moral electricity when conveying a thought to a working man at the opposite end of the social pole, who used to be very far distant; he may put on a little more of the moral electricity which shall then be discovered to carry the instantaneous message of one feeling, one interest, one object, one hope of success from the lordly end to the working man's end of the social world. Universal enfranchisement, railways, electric telegraphs, public schools, (the greatest of the moral levers for elevating mankind, named last—because last to be established, which should have been first,) these are some of the elements of a moral faith—a faith believing in the universal brotherhood of mankind, not in a world to come, but in a time to come in this present world, which I daily hold, and never doubt upon; which I believe will as certainly be realized as I believe that *good*, and not *evil*, was the object of all creation, and is the end of all existence.

New York and Albany Railroad, Location from Fishkill to Albany.

Continued from page 149.

ENGINES FOR FREIGHT TRAINS.

These generally travel at the rate of about 12 miles per hour. At this speed the resistance from air is not of much moment, and is not usually taken into account; this calculation will not be made so close, in regard to power and resistance, as to render it necessary to do so. The adhesion will be taken at 1-8th the insistent weight, which is about 1-3 less than will be available in a good state of the rails. As the speed is slow, two pairs of driving wheels are necessary, and it will be easy to give the engine power to work up to this adhesion. Engines for freight trains have been made for six and eight driving wheels, but for general use those with two pairs, or four driving wheels, are preferred.

The data for the calculation of their performance will be as follows;

Weight of engine, 20 tons.

Weight on 4 drawing wheels, 14 tons, or 31,360 pounds.

Adhesion 1 8th the insistent weight on drivers. Tender, 14 tons.

Traction per ton of gross load, 8½ pounds.

Then $\frac{31360}{8}=3920$ pounds, the tractile power of the engine.

$\frac{3920}{8\frac{1}{2}}-14=447{\cdot}17$ tons, the gross load on a level, exclusive of engine and tender.

The load that can be taken up an ascent of 10 feet per mile $=\frac{447{\cdot}17-(10+7)}{1\,5}=286\,78$ tons.

Ascent of 17 ft. per mile $=\frac{447{\cdot}17-(17+11{\cdot}9)}{1{\cdot}85}$ $=226\,09$ tons.

The freight a car will carry should be 6-10ths of the car and freight. The amount of freight, therefore, comprised in the above calculated loads, will be:

On a level - $447{\cdot}17\times 6=268\,30$ tons.
Ascent 10 ft. per m. $286{\cdot}78\times 6=172\,06$ "
Ascent 17 ft. per m. $226\,09\times 6=135{\cdot}65$ "

The cost of running the train (exclusive of depot expenses) is estimated for engine men, (including driver, firemen, conductor, and brakemen,) fuel, oil, and maintenance of way, and engine, at 50 cents per mile run, or for 144 miles $72; for cars, including maintenance of the same, and their share of maintenance of way, 35 cents per ton of freight on the whole trip of 144 miles.

The cost of transportation will be for an ascent of 10 feet per mile—

Engine, etc., as above, -	$72 00
172 tons freight at 35 cts.,	60 20
	$132 20

For an ascent of 17 feet per mile—

Engine, etc., as above, -	$72 00
135 tons freight at 35 cts.,	47 25
	$119 25

The cost per ton transported, hence, is—

On the river line $\frac{132\,20}{172}=76{\cdot}86$ cents.

On the interior line $\frac{119\,25}{135}=88\,33$ cents.

Difference in favor of the river line, say 12 cents per ton.

In order to present a more comprehensive view of the comparative ultimate economy of these two routes, it is necessary to ascertain the amount of business that will be done, and that will be influenced by this question: All the through business, and a large portion of the way business above Fishkill will be affected by it. It is, obviously, proper that any estimate that is made should look forward to a period some years subsequent to the opening of the road throughout. Not less than five years (and ten would be nearer the mark) should be taken to allow a fair development of the business of the road, which will go on thereafter, increasing with the growth of the country. Keeping this in view, not less than 500,000 passengers, and 100,000 tons of freight, may be taken as the amount of business that will be affected annually by this question, and according to the results arrived at above, this would be done at a reduction of cost on the river line, as compared with the interior, as follows:

500,000 passengers at 8 cents	$40,000
100,000 tons freight at 12 cents	12,000
Total	52,000

These amounts of traffic must be regarded as moderate, in view of the prospects of the road.

It is estimated that the river line would be more expensive to maintain, on account of exposure to the ice, and the wash of the river.

This, however, would be counterbalanced to some extent by the slides and settlement of the heavy clay cuttings and embankments that must be encountered on the interior route. The river route, especially that portion exposed to the action of the river, is for the most part of hard and rocky materials, well adapted to resist the influences referred to. So far as fuel or other material for the use of the road may be required from the river market, the river route will be most advantageous. In view of the relative exposure that will cause extra expense in maintenance and the facilities for conducting the business of the road on the two routes, it is considered that the river route will be in the aggregate the most expensive, probably to the amount of ten thousand dollars per annum. This is a proper item to be deducted from the superior economy above shown in favor of the river route in regard to running expenses, and will reduce the saving to forty-two thousand dollars per annum.

If, therefore, the amount of annual business before assumed, be well founded, the river route will be equal as an investment, at the additional outlay in first cost of $500,000.

The estimated excess in cost has been shown to be $538,663. This difference in cost compared with the economy in conducting the business of transportation, leaves the question of route to be settled mainly by the relative prospects of business on the two. In examining this question, it is proposed to confine the inquiry to those items that are or may be considered peculiar to each. The general or through trade is supposed to have been provided for in the calculations before presented; but it is considered proper to remark that it is believed the amount assumed is much below what it will be within ten years of the time of the completion of the road, and was taken, rather than place this question on a more remote period of its trade. Both routes reach Poughkeepsie on lines that leave no important considerations in favor of one over the other.

After leaving this place, the interior route intersects no village or city on the river, until it reaches Hudson, which it passes about one mile from the river. It passes through or near the villages on the old post road, ranging from one to near four miles from the river. From Hudson the line inclines easterly from the river, passing several factories, and running about one and a half miles westerly from the village of Kinderhook, where it is about three miles from the river; thence inclining towards the river, the line traverses about six miles of cultivated country, and about ten miles very little cultivated, when it comes out into the valley of the river, about three miles from Albany. After passing Kinderhook, there is no village on the line, or nearer than those on the river, which, on the east side, are small between Hudson and Albany.

Between Poughkeepsie and Hudson, this line traverses a fine agricultural district, that extends from the east bank of the Hudson river to ten, and in some cases, fifteen miles in width, where the country becomes broken and hilly, and much less valuable for agriculture. There is nothing worthy of note as manufactures, or mechanical facilities for manufactures in this district. The trading towns are small, dividing the commerce of the country with the small villages on the river where the heavy business is done. Between Hudson and Kinderhook village, there are several large manufactories, at Columbiaville, print works, Staatsville and Stuyvesant Falls. If concentrated, they would form a very respectable manufacturing town. Some of them are so situated that they would be as well accommodated by one line as the other, but generally the inland route would best accommodate them. From Hudson to about six miles north of the Kinderhook village, the line traverses a fine agricultural district.

The interior route for the most part runs from two to four, and sometimes (by the travelled roads) five miles from the river. This circumstance will give it the control of the passenger business of the district through which it passes, at higher rates of fare than could be obtained from the same, if they were to go to the line on the river, where a choice could be made between the railroad and steamboat conveyance. The saving in cartage over the ordinary roads, would be an inducement to send a larger amount of freight on the railroad, than would be sent if the property were transported to the river, where navigation would come in direct competition with the railroad.

These remarks are applicable only during the season of navigation; when the river is closed by ice, the railroad will have no competitor.

The river route following the shore, and passing directly, or near by the steamboat landings, must come in direct competition with the river navigation, for all its business during the season when the river is not obstructed by ice. If it should not be able to sustain this competition successfully, then it is clear the interior route would be the best, and it would be advisable to carry it still farther from the river than it has been run.

If it be admitted the railroad will successfully compete with steamboats, still it would be at some reduction in profit, and a larger amount of trade must be secured on the river route to produce the same amount of income.

The villages on the east shore of the river, betweeen Poughkeepsie and Hudson, and also between Hudson and Albany, are small. On the opposite side of the river the villages are much more important. Of the latter, Kingston and Rondout are situated at the termination of the Delaware and Hudson canal, and more shipping is employed at Rondout than at any other place between New York and Albany.

Saugerties is a large and flourishing manufacturing village. Catskill is among the most important towns on the river. Athens is a considerable village opposite Hudson. Coxackie is the most important village between Hudson and Albany, and New Baltimore and Cœymans, larger than any village on the east side between the same places, except Stuyvesant landing. By an inspection of the map of the state, it will be seen that the trade and travelling of a larger extent of country concentrates and passes through the villages on the west side than through those on the east side, if we except Poughkeepsie and Hudson.

This arises from the greater facility of diversion on the east than there is on the west side of the river.

If the road were constructed on the interior route, it would be less able to compete for the travelling from the river villages than for the travelling of the interior villages, if the river route should be adopted; for the passengers from the villages on the river would have the boats at hand, when to take the railroad on the interior route, they must travel from one to five miles on ordinary roads to reach it; whereas, travellers from the interior, if the road was on the river route, must do no more to reach the railroad than would be necessary to reach the boats. Travellers from the west side of the river could not be expected to cross and take conveyance to the interior route to any great extent. The road constructed on the interior route would, no doubt, cut off the great mass of travelling on and east of it, that now goes to the river, and it would lose the greatest part of that on the immediate bank of the river, more particularly of the river villages; and it would lose nearly all the travelling from the west side.

If the road should be constructed on the river route, it would be able to compete at even terms with the boats on the river, for the travelling that would come from the interior line; for, as before observed, they must come to the railroad, in order to take the boats, and then the railroad and the boats would be offered for their choice. For all the business on the east side of the river, the railroad would then have a fair competition with the boats. To obtain business from the west side, the railroad must offer such facilities as will induce passengers to cross by a ferry in order to enjoy them. Advancing north from Poughkeepsie, the river narrows, and ferries may be easily and cheaply established. They already exist to a considerable extent, and it is confidently believed the advantages the railroad would offer immediately opposite, would lead to the most convenient and cheap accommodation of this sort. Suppose a number of passengers on the west side of the river at Catskill, designing to take the day boat from Albany—the cars are to arrive on the opposite side, already an hour, to an hour and a half in advance, and will reach New York four to five hours in advance of the boat; how many of them would cross a ferry requiring five minutes, and take the cars in preference to waiting for the boat? Certainly every one of them that required a

few hours to transact business in New York, and return to Catskill the same evening, and probably the greater part of those who did not design to return the same day. To reverse the direction of travelling, the passenger at New York desires to visit Catskill, and spend a few hours to transact business, or for amusement, and return to New York in the evening, would take the cars of necessity, as the boat would not furnish the means of accomplishing his object. And if he leave New York in the evening, the cars would enable him to reach Catskill about nine o'clock, while the boat would arrive at the uncomfortable hour of one or two o'clock the next morning. This is a practical affair, and may readily be comprehended by any man at all acquainted with the habits of the travelling community, and there can be no doubt a very large share of travellers from Catskill would prefer crossing a short ferry, and thereby avail themselves of the superior facilities the railroad would furnish. What has been said of passengers to and from Catskill, will apply to every town on the west side of the river above Poughkeepsie, and leaves no doubt that the way business from the west side of the river would be very large, if the road was constructed on the river route.

It is believed the freight traffic during the season of navigation would be greater on the interior than on the river route. For the season of suspended navigation, the river route would command the largest amount of freight, from the increased facility of approach from the west side of the river.

The increase of traffic from the establishment of manufactures by steam power, would be much greater on the river route than on the interior route. Many persons have little faith in the use of steam for such purposes, and will not regard this as of the least importance; but in view of the fact that steam power is now used in the eastern states to drive two hundred and forty thousand cotton spindles, besides other machinery, it cannot be doubted the highly favorable advantages enjoyed, and to be enjoyed, in the Hudson river valley, will soon induce the establishment of such manufactures.

The coal that finds its way to the shores of Rhode Island and Massachusetts, to drive steam mills, comes directly from the mines into the valley of the Hudson, and may be landed from the canal boats, at the doors of similar establishments on its banks.

The valley of the Hudson receives the traffic of a vast extent of country, which naturally seeks this avenue of communication The business of the railroad is to improve this avenue, by affording a more expeditious transit. That the road during the season of suspended navigation will control the business of freight and passengers, as before observed, cannot be questioned. If it cannot compete successfully for passengers during the season of navigation, then, as before stated, it will be best to adopt the interior route, where a considerable share of business might be obtained, in consequence of its being so far removed from the competition of the river. It therefore appears necessary to a proper understanding of the comparative merits of the two routes, that the question as to the capacity of the railroad, to compete with boats for passengers, should be examined. The great business of the railroad in summer must be in passengers, and it is proposed to examine the prospect of its ability to do this business.

If it cannot successfully compete with the boats for the way traffic, it certainly cannot for the through traffic, and in this view the question is essential to the success of the enterprise on any route. It will be considered that the boats on an average make the trip in ten hours; they sometimes, under favorable circumstances. perform it in seven and a half to eight hours, but the average of fast boats, including landings, do not much, if any exceed the average above stated. The cars on the railroad will easily make the trip in five hours. It may be urged that the boats will increase their speed, to which it is a sufficient reply, that the railroad will possess the means of maintaining a corresponding increase.

The boats, to increase their speed, must be able to resist a dense medium, (water,) while the increased resistance to the cars would be air. The relative power to pass through these elements may be judged of by the speed a man moving in water up to his neck would make, as compared with the speed he would make by exerting his power, to run through the air. Persons who speak of the increase that will be made in the speed of steamboats, have usually very little idea of the nature of the resistance they must meet, and it may be regarded as a safe basis that the cars can be moved on the railroad at about double the velocity of boats on the river.*

It has been urged by the opponents of this enterprise, that though the cars would travel faster than the boats, the latter would be able to transport at so much lower fare as to command the great bulk of the passengers.

There is no doubt that railroad fare is generally higher than that of steamboats on the Hudson. This may also be said of steamboats on other waters, as compared with the Hudson river boats. The economy of transporting passengers depends materially on the number to be carried, whether by cars or boats. Were it not that it would too much extend this paper, it might be shown that passengers could be transported at less expense on the railroad than on boats, considering the numbers that this route will furnish. But it is sufficient to show the practical working of railroads, and compare the result with what may be depended on for this road. With this view the following tabular statement has been prepared, showing at a glance, the results of business in 1846, on nine different roads in Massachusetts, seven of which terminate in Boston.

	Name of road.	PASSENGERS. Miles run by trains.	Passengers per train	Receipts per mile per train	Gross Receipts.	FREIGHT. Miles run by trains.	Tons per train.	Receipts per mile per train	Gross receipts.	Current expenses, Freight and passengers. Per mile.	Total.	Velocity per hour in miles—stops included. Passengers.	Freight.	Cost of road per mile.	Dividend per cent.	Length of road in miles. Double track.	Single track.	Total.	Miscellaneous roads.
	Boston and Lowell	134,633	81	$1 38	$185,234	52,979	160	$3 65	$193,856	$1 31	$212,233	22	12	$70,279	8	22·75	1·86	37·61	85,031
	" Providence	140,878	62	1 65	230,496	51,786	49	3 14	110,882	88	169,179	25	13	48,806	8	19·25	30·95	43·20	19,497
	" Worcester	195,692	65	1 42	279,792	93,008	130	2 79	260,165	96	283,876	22	9	65,710	8	14·62	·845	53·07	14,754
*	" Eastern	301,626	62	1 53	310,061	33,680	32	1 25	42,270	69	162,804	21	15	53,904	8	16·	25·20	41·20	15,178
	" Maine	204,401	46	1 09	223,191	60,738		1 66	119,538	68	179,734	25	8	31,812	6¼		82·57	82·57	6,405
†	" Fitchburg	140,424	44	0 92	128,737	48,173	70	3 15	151,805	63	117,447	20	10	36,259	10	5·11	46·61	51·72	6,101
	" Plymouth, C.	63,973	55	1 61	101,857	22,640	13	90	20,403	67	57,230	20	12¼	37,758	15		37·	37·	3,449
§	Nashua and Lowell	98,515	172	2 07	50,092	18,615	192	3 41	63,613	1 49	70,279	22	12	34,940	11	13·12	1·19	14 31	4,789
‖	Western railroad	215,369	99	1 81	389,861	313,259	85	1 49	469,364	75	412,680	22¼	10	52,811	6	6·45	148·55	155·	29,891
	Averages		76·2	1 50	1908,311		91·37	2 27	1,431,576	84				48,031	7·80				

* This road leases and runs about 14 miles of road to Portsmouth, for which they own the furniture.
† Total tons carried, 61,599—not reduced to distance carried.
‡ Net earnings not divided, equal to near 5 per cent.
§ Net earnings not divided, equal to 11 per cent. There appears to have been unusual expenses—repairs of road were $1,742 per mile.
‖ For 11 months' business. Net earnings for paying dividend and interest, 5·46, equal to 6·13 per cent. per annum.

The above statement presents much interesting detail, but it is only intended particularly to remark on those features that bear on the passenger traffic. They do a mixed business of freight and passengers; the latter averaging about sixty per cent., and the former about forty per cent. of the whole, from which it appears the passenger traffic is the most important in the aggregate. The expense of running passenger trains is not kept separate from freight trains, but it is known the latter are considerably more expensive

* The greatest speed attained by steamboats is believed to be that made by the Oregon and Vanderbilt last season on a race or trial of speed, from New York to Sing-Sing and back, which was about 23 miles per hour; while many instances have occurred of a speed of 60 miles per hour on railroads, or about three times that of the fastest boats, under the most favorable circumstances.

per mile run. The Eastern and Plymouth roads have the smallest freight traffic, and it is seen their running expenses are twenty cents per mile less than the average of the table.

The average cost of the above railroad is not materially different from what will be the cost of the Hudson river road, with a similar amount of double track and furniture. The total amount of receipts per mile of train run for passengers averages $1·497, say 150 cts. The average number of passengers is seventy-six. With a traffic made up of this and forty per cent. of freight, the average dividends were seven and eight tenths per cent. in 1846.

The reports are not yet officially made for 1847, but it is known the dividends have exceeded an average of eight per cent. Con sidering the great extent of country that con centrates its traffic on the Hudson, and the favorable grades, or planes, this road offers for the transportation of freight, it may safely be assumed that it will derive as much profit from freight, in proportion to its length, as the average of the railroads in the above table; and if it can do a passenger business equal to the average that appears above, then it is fair to conclude it will produce equally as great an income as they do, or a dividend of say eight per cent. on its cost.

In order to do this, it must receive an average of one hundred and fifty cents per mile run by passenger trains, and run as many trains, at similar expense, for running that is incurred by the average of the above railroads. The planes being much more favorable on the Hudson river railroad than the average of those in the table, it may be run at considerably higher speed without increasing the expense. A charge of the average rate of one cent per mile per passenger, would require the average number of one hundred and fifty passengers, to give this road the same success as those in the table. It therefore remains to ascertain if this average number of one hundred and fifty passengers per train can be obtained.

In general, it may be remarked that the Hudson river railroad will occupy the greatest thoroughfare for travelling on this continent, and forty trains per day, of the size above required, would not suffice to transport the average number of passengers during the season of navigation. It has a great natural increase that may be expected to go on for many years to come. Increased facilities will still further augment this natural increase, and it may confidently be expected that, within five years from the time the railroad is in operation its whole length, it will, beyond doubt, require from seventy to eighty such trains per day. But fifteen such trains per day would afford the proposed support to the railroad. This would leave more business for the boats at the end of the five years, as above, than they now have. Is it practicable for the railroad, at a fare of one cent per mile, to secure this amount of business? This is the problem to be solved.

Those travellers who, from a love of expe dition, or have an object to economise time, would, no doubt, give preference to the railroad, and this embraces a large class of passengers. But this will appear more clearly by following the practical working of the road.

FIRST.—IN REGARD TO THE MORNING TRAINS.

The boat and the cars are supposed to start at the same hour in the morning, say seven o'clock. The cars will reach Albany at 12 M. The traveller having business requiring several hours to transact at Albany, and desiring to return to New York the same evening, would certainly take the cars, as his business would be transacted, and himself on his way back by the P.M train about the time the boat would have reached Albany. This will apply to travellers under similar circumstances, to intermediate towns. It will be kept in mind that the boats do not furnish facilities sufficient for travelling to and from Poughkeepsie the same day. A traveller desires to visit the springs; by the cars he will reach Saratoga in good time for dinner, and he will have dined, and be enjoying the benefits of this celebrated watering place, before the boats will have reached Albany. He may dine at Saratoga the next day, return by the evening train to New York, and be at home by ten o'clock, having spent over a day at the springs, lost no regular rest, with an absence of about thirty-eight hours only from New York. Again, the travellers are going west. (Here it is presumed the roads west of Albany will be put in a condition to realize the progress of railroads.) To a considerable extent these travel by the day line, and would find their taste or convenience very much promoted by the railroad; but the largest portion of the western travellers take the night boat to save time, though they do not like the rest they get on the boats. Some persons, from habit or peculiar temperament, rest very well on steamboats, but it is notorious that the great mass of travellers who take the night boat do so merely to save time, and by so doing, make a sacrifice of comfort, which they would be glad to avoid. By taking the morning cars they would reach their destination within a few hours of the time they would have done by taking the boat the evening before. Those for Utica, Syracuse, Auburn, and even Rochester, would be at their destination the evening of the same day.

Travellers from Albany would reach New York by the six o'clock morning trains at eleven o'clock A.M., and have nearly all the business hours of the day, which would be concluded before the arrival of the boat, and for transactions not requiring more time would be able to take the evening train, and reach Albany by ten o'clock in the evening of the same day. Way passengers would secure the same advantages. The cars would be much more exact as to time, and would be first offered, as the boat must rapidly fall behind; and it may be regarded as certain, at the fare proposed, that very few would have the philosophy to wait for a chance on the boat. *Instead of its being a question whether the cars could compete with the boats, it is hardly possible the day boats could compete with the cars, especially for first class passengers. The way traffic must inevitably be swept off before their arrival at the way landings. The facilities that will be offered by the cars will not only take the greatest share of the present day travel, but must greatly draw from the night travel.*

SECOND.—IN REGARD TO THE EVENING TRAINS.

Business is generally over, and passengers may be ready to leave New York at five P.M. The way boats all leave at or before this hour. The cars will then reach Albany by ten o'clock in the evening, and all travellers who do not like a lodging on a steamboat, by taking the cars, will be able to lodge at Albany, and may take the cars west from Albany at the same hour the next morning, with those who travelled all night in the boats, provided fogs or low water had not prevented the boats from reaching Albany in time for the morning train, in which case the railroad passengers would proceed without them. If expedition be important to the traveller, he would proceed west from Albany at 11 o'clock the same evening he left New York, take an early breakfast at Syracuse, and dine at Buffalo the next day. For the travellers to way stations on the river, especially at or above Poughkeepsie, the hour of reaching their destination by the cars would be so much more desirable than by the boats as to decide the question, with the great mass in favor of the cars. The evening train from Albany will take such passengers as prefer to lodge at home, or at a hotel, and be prepared, by quiet and refreshing sleep, for the next day's business, to a half waking and disturbed rest on a steamboat, disqualifying them for a vigorous attention to the duties of the following day. The evening train will take up the way passengers in advance of the boat, and at a more desirable hour for the greater part.

The cars will run more frequently, and thus better accommodate the travelling public than the boats. All travelling between intermediate places on the route will be far better accommodated by the cars than it can be by the boats.

Thus far the subject has been discussed with reference to first class passengers, to whom the saving in time secured by the certainty and superior speed of the cars, the superior convenience and comfort of intercourse, as well as the fondness for rapid travelling, would be a sufficient inducement to pay the low fare proposed on the railroad, rather than travel for nothing on the boats. But if it shall appear of any importance for the railroad to run second class trains, in order to meet the competition of the boats for passengers who prefer lower fare to a saving in time, such trains, it has been shown, could be run at half the rate of fare, and make the trip in seven hours, and afford a remunerating profit to the road. At this speed they would always be in advance of the boats, and a great deficiency on the boats for this class of passengers, and free from delays by fogs, sand bars, and low water, would be much better accommodated by the cars, and make an average saving of two to three hours in time.

The railroads, as before observed, would possess the power of running trains more frequently, taking up the passengers more in detail, and thus extend greater accommodations to the general traffic than could be done by the boats.

What can be done by the steamboats on the Hudson is well known, and though there is no railroad actually constructed, it is equally well known, that it can be constructed and run as proposed. The result is as much a matter of certain calculation in the one case as in the other. It is reduced to a practical demonstration, and needs only to be looked at by the eye of an every day philosophy. Speed can be attained, and will command passengers at a remunerating fare, and the irresistible conclusion is—

That the improved facilities the railroad will furnish, will enable it, not only to compete successfully with the boats, for the present traffic: but will be the means of greatly augmenting the number of passengers on the route.

Instead of 150 passengers per train, the fast trains may be expected to average 200 passengers, and the slow, or seven hour train, 350 to 400 per train, during the navigable season. The average daily number of passengers on this route is now estimated at 7000, and the increase the railroad will produce, together with the natural increase, will swell this to 10 000 by the time, or soon after, the railroad can be completed throughout. It is certainly a moderate estimate, to assume that the fast trains on the railroad will take, of this number, 3000, and the slow trains an equal number, making together, 6000, as the daily summer traffic, estimated to average 100 miles each.

The winter traffic, or that during the season of suspended navigation, as before observed, will wholly centre on the railroad, both for freight and passengers. The length of this season, with the uncertainty that attends the close and opening of navigation, may be taken at an average of about four months. If the river route be adopted, it will receive, during this season, nearly as much traffic from the interior route as would come to it if that route were adopted. Being in the valley of the river, it would draw from the west shore a much larger amount of both freight and passengers, than would seek the interior route from the same quarter.

Reviewing the subject, it appears—

First. That the interior route will be more expensive than was indicated by the original survey.

Second. That the cost of constructing the river route over that of the interior route, will be less than was anticipated.

Third. That the cost of working the road on the river route will be so much less than the cost of working on the interior route, as to neutralize the excess in first cost.

Fourth. That the road will be able to do a successful passenger business in competition with the steamboats—and by its peculiar and superior facilities, will greatly augment the passenger traffic.

Fifth. That the valley of the river is the natural thoroughfare for the trade and travel of the country on both sides, increasing in extent and importance, as the line advances north to Albany and Troy—and, consequently, the river route, lying directly in the valley, will most effectually secure its present and prospective business, and render the road more extensively useful to the public.

Sixth. That the river route occupying the natural channel of intercourse and trade, will best secure an adequate income to the stockholders for the outlay they are required to make.

Seventh. That in the aggregate, the river route, presenting the greatest advantages, both to the public and the stockholders, is therefore recommended to be adopted.

It is belived the estimates for the cost of construction, and expense of running the road, will be found fully adequate to meet the wants of the work. They have been reached after thorough surveys, investigations and estimates in detail, which cannot vary essentially from the amounts stated.

The report of J. T. Clark, Esq., locating engineer, is herewith appended.

In conclusion, it may be remarked, that the examinations connected with this question, have incidentally led to a confirmation of the favorable opinion heretofore entertained of the great usefulness and productiveness of this enterprise. Improvement in the means of social and commercial intercourse, have, from time immemorial, been regarded as among the highest evidences of civilization, intelligence, and refinement of society, and it is confidently believed, that the time is not distant, when the benefits of this road will be so developed that none will be found to disparage the work of art that shall justly claim a participation in the production of those efforts that mark the progress of social, intellectual, and moral improvement. To the intercourse of the great thoroughfare on which it is located, as well as to the commercial interest of the city and state, the work is due, as a means of more frequent and rapid transit in summer, and as a remedy for the embarrassment and suspension of communication, now imposed by frost for one-third of the year—and it is demanded as a means of giving to the valley of the Hudson that increased facility of intercourse in its social and commercial relations, that is called for in the present state of science and civilization.

The thorough surveys and investigations that have been made during the last season, place the enterprise on a well ascertained basis, clearly demonstrating its feasibility and usefulness, and afford high inducements, founded upon public advantage and remuneration for the outlay, to stimulate that diligent and intelligent perseverance which may secure an early accomplishment of the great work.

These remarks are made with a profound sense of the responsibility that is involved, and under the firm belief that they are well founded.

Respectfully submitted,
JOHN B. JERVIS, *Chief Eng.*

HUDSON RIVER RAILROAD.—Notice for Proposals. Sealed proposals will be received by the Directors of the Hudson River Railroad Company at their office, 54 Wall street, until the 15th day of March, for the Grading, Masonry, Piling and Bridging for that portion of said road which extends from Break Neck Hill to Poughkeepsie, a distance of about twenty miles. The work to be completed by the 1st day of April, 1849, according to the plans and specifications that will be submitted for examination as hereinafter mentioned. A reserve of 20 per cent. on the monthly estimates will be retained by the company until the contract is completed, as security for performance. No transfer of contracts will be recognised or permitted.

The maps and profiles of the line, the plans of work, the form of contract, and specifications of the manner of executing the same, will be ready for examination on and after the 10th of March, at the office of the Resident Engineer, Cold Spring, for that portion of the line between Break Neck Hill and Fishkill Landing: and at Poughkeepsie for the remainder of the line. On the 15th of March the maps, profiles and plans of work will be presented at the office of the company, 54 Wall street.

The line will be divided into convenient sections, and proposals may be made for one or all the sections; the party proposing, to state whether they desire all, and if not, what portion of the work they propose to enter into contract for.

The full names of all persons that are parties to a proposition, must be wrtten out on the same.

The party to any proposition which may be accepted, will be required to enter into contract immediately after the acceptance of the same.

The Directors reserve to themselves the right to accept or reject proposals that may be offered, as they consider the interest of the company to require.

JOHN B. JERVIS, *Chief Engineer.*
Office of the Hudson River Railroad Co.
New York, 22d Feb., 1848. 2t10

NORWICH CAR FACTORY,
NORWICH, CONNECTICUT.

AT the head of navigation on the River *Thames*, and on the line of the *Norwich and Worcester Railroad*, established for the manufactory of

RAILROAD CARS,
OF EVERY DESCRIPTION, VIZ:
PASSENGER, FREIGHT AND HAND CARS,
ALSO, VARIOUS KINDS OF
ENGINE TENDERS AND SNOW PLOUGHS.
TRUCKS, WHEELS & AXLES

Furnished and fitted at short notice.
Orders executed with promptness and despatch.
☞ Any communication addressed to
JAMES D. MOWRY,
General Agent,
Norwich, Conn.,
Will meet with immediate attention. 1y8

DAVIS, BROOKS & CO., NEW YORK, offer for sale:
150 tons Railroad Iron, 60 pounds per lineal yard, of an approved pattern, and in long bars; also,
500 tons, ditto, expected to arrive in the month of April next. 6t8

NEW PATENT CAR WHEELS.

THE SUBSCRIBERS ARE NOW MANUfacturing Metallic Plate Wheels of their invention, which are pronounced by those that have used them, a superior article, and the demand for them has met the most sanguine expectations of the inventors. Being made of a superior quality of Charcoal Iron, they are warranted equal to any manufacture.

We would refer Railroad Companies and others to the following roads that have them in use. Hartford and New Haven, Connecticut River Railroad, Housatonic, Harlem, Farmington, and Stonington.

SIZER & CO.
January 29, 1848. tf Springfield, Mass.

BACK VOLUMES OF THE RAILROAD JOURNAL for sale at the office, No. 105 Chestnut street.

TWO LOCOMOTIVE AND MARINE ENgine Boiler Builders. Pascal Iron Works Philadelphia. Welded Wrought Iron Flues, suitable for Locomotives, Marine and other Steam Engine Boilers, from 2 to 5 inches in diameter. Also Pipes for Gas, Steam and other purposes; extra strong Tube for Hydraulic Presses; Hollow Pistons for Pumps of Steam Engines, etc. Manufactured and for sale by

MORRIS TASKER & MORRIS,
Warehouse S. E. corner 3d and Walnut Sts., Philadelphia 1tf

THE SUBSCRIBER IS PREPARED TO execute at the Trenton Iron Works, orders for Railroad Iron of any required pattern, and warranted equal in every respect in point of quality to the best American or imported Rails. Also on hand and made to order, Bar Iron, Braziers' and Wire Rods, etc., etc.

PETER COOPER 17 Burling Slip.
1y10 New York.

IMPORTANT TO ENGINEERS, CONtractors, and Surveyors.—The Engineer's, Contractor's and Surveyor's Pocket Table Book, by J. M. Scribner, A. M., 264 pages, 24 mo; tuck binding, with gilt edge. Published by Huntington & Savage, 216 Pearl street, New York.

The above work comprises Logarithms of Numbers, Logarithmic Sines and Tangents, Natural Sines and Natural Tangents; the Traverse Table, and a full and extensive set of tables, *exhibiting at one view the number of cubic yards contained in any embankment or cutting, and for any base or slope of sides usual in practice.* Besides these essential tables, the work comprises 50 pages more of Mensuration Tables, Weights of Iron, Strength of Materials, Formulas, Diagrams, etc., for laying out railroads, canals and curves; much of which has never before been offered to the public, and all dispensable to the engineer. This book will prove a great saving of time, and will enable the new beginner to furnish results as accurately (and with much greater rapidity) as the most experienced in the profession without its aid. The tables of Logarithms, etc., have been carefully corrected and compared with *different* editions of the same tables; and *all* the tables throughout the book have been read carefully by proofs four times; hence the most implicit confidence may be placed in their correctness.

Also, *Scribner's Engineer's and Mechanic's Companion*, new edition, 264 pages, enlarged, with 35 pages of entirely new matter, and much improved throughout.

It is believed these books are so well adapted to suit the above professions, that they cannot *afford* to do without them, and that they will aid in rewarding well directed mental labor.

Both are for sale by all the principal booksellers throughout the United States and Canada.

NOTICE TO RAILROAD CONTRACTORS. The completion of the Western and Atlantic Railroad of the State of Georgia, from Dalton to Chattanooga on the Tennessee river—38 miles, and a tunnel for a single track, 1400 feet long.

Sealed proposals will be received, until the 20th day of March next, at the Chief Engineer's office, of the Western and Atlantic Railroad in Atlanta, Georgia, for the completion of the grading and masonry, the bridging, superstructure, iron rails and fastenings, single track tunnel 1400 feet long, depots, turn tables, turnouts, pumps and everything else necessary for the reception of the locomotives and cars, on that portion of the Western and Atlantic railroad lying between Dalton and Chattanooga.

Proposals are invited for *detached portions* of said work, and also for *the whole in one contract*, according to the Act of the Legislature, approved the 30th December, 1847.

Plans and specifications can be examined, and detailed information given at the Chief Engineer's office, in Atlanta, on and after the 21st of February next. GEO. W. TOWNS, *Governor.*

WM. L. MITCHELL, *Chief Engineer.*
Atlanta, Ga., January 21, 1848. [7t6]

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by A. & G. RALSTON
Mar. 30tf 4 South Front St., Philadelphia.

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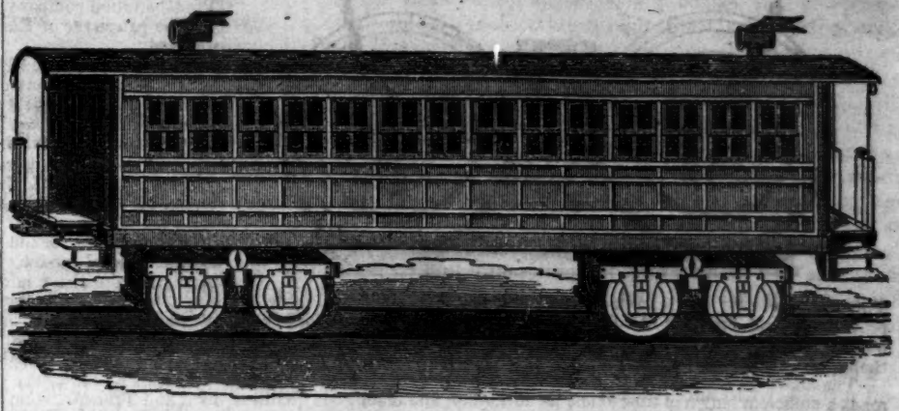

Manufacture to Order, Passenger and Freight Cars of every description, and of the most improved pattern; also furnish Snow Ploughs and Chilled Wheels of any pattern and size. Forged Axles, Springs, Boxes and Bolts for Cars at the lowest prices.

All orders punctually executed and forwarded to any part of the country.

Our Works are within fifteen minutes ride from State street, Boston—Omnibuses pass every fifteen minutes. 10*f*

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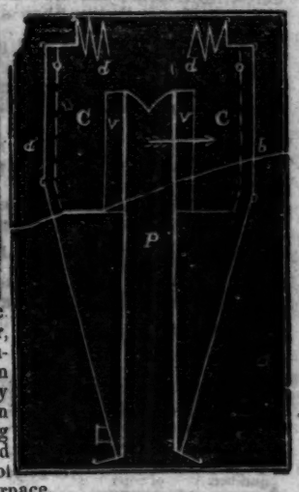


TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved Spark-Arrester recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger & freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits

R. L. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, care Messrs. Baldwin & Whitney, of this city or to Hinckly & Drury, Boston, will be promptly executed. FRENCH & BAIRD.

N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

LOCOMOTIVE AND CAR AXLES. The Subscribers are now prepared to receive orders for the well known and approved *Reading Locomotive and Car Axles*—drawn to any required pattern from *Bloom Iron only.* Address

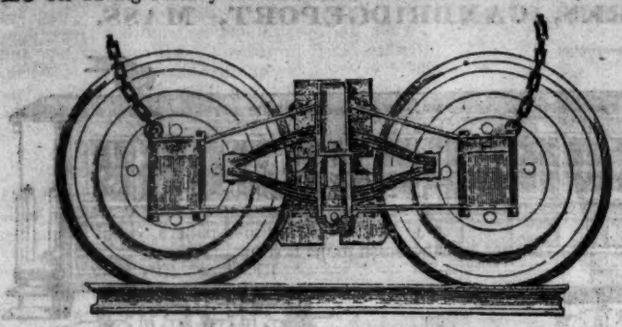
SAM'L KIMBER & CO.,
Willow Street Wharf,
1tr Philadelphia, Pa.

RAILROAD IRON, PIG IRON, ETC.

600 Tons of T Rail 60 lbs. per yard.
25 Tons of 2¼ by ½ Flat Bars.
25 Tons of 2½ by 9-16 Flat Bars.
100 Tons No. 1 Gartshrorie.
100 Tons Welsh Forge Pigs.

For Sale by A. & G. RALSTON & CO.
No. 4 So. Front St., *Philadelphia.*

RAY'S EQALIZING RAILWAY TRUCK.--THE SUBSCRIBER having recently formed a business connection in the City of New



York, expressly for the manufacture of the newly patented and highly approved Railroad Truck of Mr. Fowler M. Ray, is ready to receive orders for building the same, from Railroad Companies and Car Builders in the United States, and elsewhere.

The above Truck has now been in use from one to two years on several roads a sufficient length of time to test its durability, and other good qualities, and to satisfy those who have used it, as may be seen by reference to the certificates which follow this notice.

There have been several improvements lately introduced upon the Truck, such as additional springs in the bolster of passenger cars, making them delightful riding cars—adapting it to tenders, trucks forward of the locomotive, and freight cars, which, with its original good qualities, make it in all respects the most desirable truck now offered to the public.

Orders for the above, will, for the present, be executed at the New York Screw Mill, corner 33d street and 3d avenue, (late P. Cooper's rolling mills) and at the Steam Engine Shop of T. F. Secor & Co., foot of 9th street, East river, (of which firm the subscriber was late a partner) under the immediat supervision of Mr. Ray himself.

Several sets of trucks containing the latest improvements have recently been turned out for the New York and Erie railroad, and the New Jersey Transportation company, which may be seen upon said roads.

The patronage of Railroad Companies and Car Builders is respectfully solicited.

New York, May 4, 1846. W. H. CALKINS, and Others.

To all whom it may concern:—This is to certify that the New Haven, Hartford and Springfield railroad co., have had in use six sets of F. M. Ray's patent trucks for the last 20 months, during which time it appears to me, they have proved to be the bes and most economical truck now in use.

[Signed,] WILLIAM ROE, Sup't of Power.

I certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Philadelphia and Reading railroad for some time past, under a passenger car.

For simplicity of construction, economy in cost, lightness of material, and extreme ease of motion, I consider it the best truck we have ever used. Its peculiar make also renders it less liable to be thrown off the track, when passing over any obstruction. We intend using it extensively under the passenger and freight cars of the above road.

Reading, Pa., October 6, 1845. [Signed,] G. A. NICOLL, Sup,t Transportation, etc., Philadelphia and Reading Railroad.

To all whom it may concern:—This is to certify that the N. Jersey Railroad and Transportation company have used Fowler M. Ray's Truck for the last seven months, during which time it has operated to our entire satisfaction. I have no hesitation in saying that it is the simplest and most economical truck now in use. [Signed,] T. L. SMITH,

Jersey City, November 4, 1845. N. Jersey Railroad and Transp. Co.

This is to certify that F. M. Ray's Patent Equalizing Railroad Truck has been in use on the Long Island railroad for the last year, under a freight car.

For simplicity of construction, economy in cost, lightness of material and ease of motion, I consider it equal to any truck we have in use.

Long Island Railroad Depot, Jamaica November 12, 1845. } [Signed,] JOHN LEACH, 1y19 Sup't Motive Power.

ENGLISH PATENT WIRE ROPES—FOR THE USE OF MINES, RAILWAYS, ETC.—for sale or imported to order by the subscriber.

These Ropes are manufactured on an entirely different principle from any other, and are now almost exclusively used in the collieries and on the railways in Great Britain, where they are considered to be greatly superior to hempen ones, or iron chains, as regards safety, durability and economy. The plan upon which they are made effectually secures them from corrosion in the interior, as well as the exterior of the rope, and gives a greater compactness and elasticity than is found in any other manufacture.

Many of these ropes have been in constant operation in the different mines in England, and on the Blackwall and other inclined planes, for three and four years, and are still in good condition.

They have been applied to almost every purpose for which hempen ropes have been used—mines, heavy cranes, standing rigging, window cords, lightning conductors, signal halyards, tiller ropes, etc. Reference is made to the annexed statement for the relative strength and size. Testimonials from the most eminent engineers in England can be shown as to their efficiency, and any additional information required respecting the different descriptions and application will be given by

ALFRED L. KEMP,
75 Broad street, New York, sole agent in the United States.

Statement of Trial made at the Woolwich Royal Dock Yard, of the Patent Wire Ropes, as compared with Hempen Ropes and Iron Chains of the same strength.—October, 1841.

WIRE ROPES.				HEMPEN ROPES.			CHAINS.		STRENGTH
Wire gauge number.	Circumference of rope.	Weight per fathom.		Circumference of rope.	Weight per fathom.		Weight per fathom.	Diameter of iron.	Tons.
	INCH.	LBS.	OZ.	INCH.	LBS.	OZ.	LBS.	INCH.	
11	4¼	13	5	10	21	–	50	15-16	20
13	3¼	8	3	8¼	16	–	27	11-16	13¼
14	3¼	6	11	7¼	12	8	17	9-16	10¼
15	2¼	5	2	6¼	9	4	13¼	1-2	7¼
16	2¼	4	3	6	8	8	10¼	7-16	7

N.B. The working load, with a perpendicular lift, may be taken at 6 *cwt. for every lb. weight per fathom, so that a rope weighing* 5 *lbs. per fathom would safely lift* 3360 *lbs., and so on in proportion.* 1y24

RAILROAD SCALES.---THE ATTENTION of Railroad Companies is particularly requested to Ellicotts' Scales, made for weighing loaded cars in trains, or singly, they have been the inventors, and the first to make platform scales in the United States; supposing that an experience of 20 years has given a knowledge and superior advantage in the business.

The levers of our scales are made of wrought iron, all the bearers and fulcrums are made of the best cast steel, laid on blocks of granite, extending across the pit, the upper part of the scale only being made of wood. E. Ellicott has made the largest Railroad Scale in the world, its extreme length was one hundred and twenty feet, capable of weighing ten loaded cars at a single draft. It was put on the Mine Hill and Schuylkill Haven Railroad.

We are prepared to make scales of any size to weigh from five pounds to two hundred tons.

ELLICOTT & ABBOTT.
Factory, 9th street, near Coates, cor. Melon st.
Office, No. 3 North 5th street,
1y25 Philadelphia, Pa.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee G. A. NICOLLS,
ja15 *Reading, Pa.*

TO RAILROAD COMPANIES AND MANUFACTURERS of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside. THOMAS & EDMUND GEORGE,
a45 N. E. cor. 12th and Market sts., Philad., Pa.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

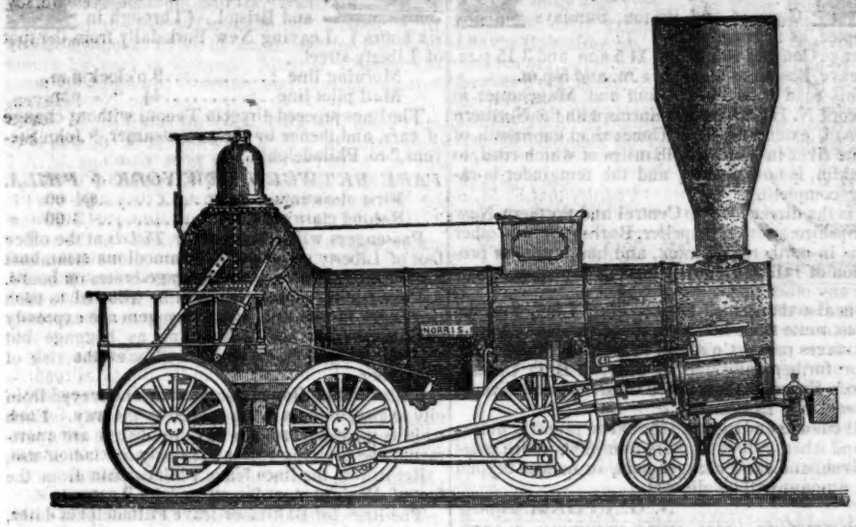
The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention. ANDREW C. GRAY,
a45 President of the Newcastle Manuf. Co.

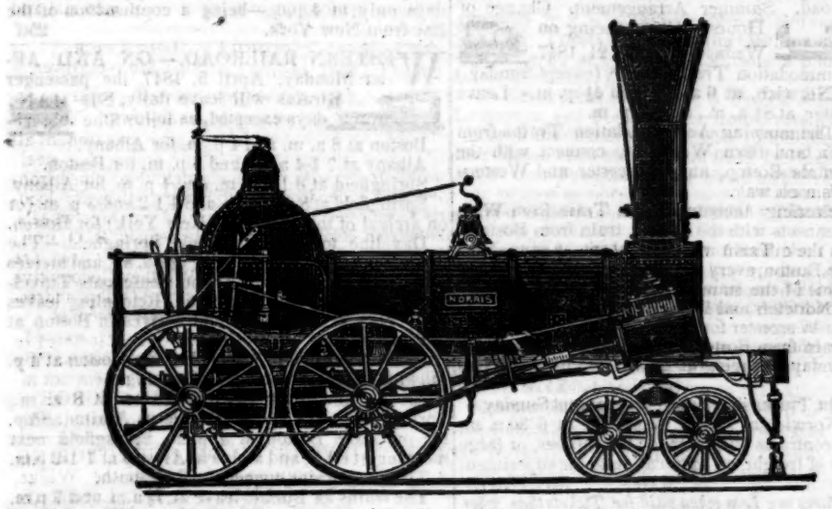
KEARNEY FIRE BRICK. F. W BRINLEY, Manufacturer, Perth Amboy N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms mos. from delivery of brick on board. Refer to

James P. Allaire, Peter Cooper, Murdock, Leavirt & Co. } New York.
J. Triplett & Son, Richmond, Va.
J. R. Anderson, Tredegar Iron Works, Richmond, Va.
J. Patton, Jr. Colwell & Co. } Philadelphia, Pa.
J. M. L. & W. H. Scovill, Waterbury, Con.
N. E. Screw Co. Eagle Screw Co. } Provicence, R. I.
William Parker, Supt. Bost. and Worc. R. R.
New Jersey Malleable Iron Co., Newark N. J
Gardiner, Harrison & Co. Newark, N. J
25,000 to 30,000 made weekly. 35

NORRIS' LOCOMOTIVE WORKS.

BUSHHILL, SCHUYLKILL SIXTH-ST., PHILADELPHIA,





THE UNDERSIGNED Manufacture to order Locomotive Steam Engines of any plan or size.

Their shops being enlarged, and their arrangements considerably extended to facilitate the speedy execution of work in this branch, they can offer to Railway Companies unusual advantages for prompt delivery of Machinery of superior workmanship and finish.

Connected with the Locomotive business, they are also prepared to furnish, at short notice, Chilled Wheels for Cars of superior quality.

Iron and Brass castings, Axles, etc., fitted up complete with Trucks or otherwise.

NORRIS' BROTHERS.

MACHINE WORKS OF ROGERS, Ketchum & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works being extensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
Paterson, N. J., or 60 Wall street, N. York.

PIG AND BLOOM IRON.—THE SUBSCRIbers are agents for the sale of numerous brands of Charcoal and Anthracite Pig Iron, suitable for Machinery, Railroad Wheels, Chains, Hollowware, etc. Also several brands of the best Puddling Iron, Juniatta Blooms suitable for Wire, Boiler Plate, Axe Iron, Shovels, etc. The attention of those engaged in the manufacture of Iron is solicited by

A. WRIGHT & NEPHEW,
12tf Vine St. Wharf, Philadelphia.

T. & C. WASON, Manufacturers of every style of Freight and Baggage Cars.—Forty rods east of the depot, Springfield, Mass.

Running parts in sets complete, Wheels, Axles, or any part of cars furnished and fitted up at short notice and in the best manner.

N.B. Particular attention paid to the manufacture of the *most improved* Freight Cars. We refer to the New Haven, Hartford and Springfield; Connecticut River; Harlem; Housatonic, and Western, Mass., Railroads, where our cars are now in constant use.

Dec. 25 1847.—1y.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engaged in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required; large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,
1y Albany Iron and Nail Works.

THE SUBSCRIBERS ARE PREPARED TO execute orders at their Phœnix Works for Railroad Iron of any required pattern, equal in quality and finish to the best imported.

REEVES, BUCK & CO.,
Philadelphia.
ROBERT NICHOLS, Agent,
26tf No. 79 Water St., New York.

CHILLED RAILROAD WHEELS.—THE undersigned are now prepared to manufacture their Improved Corrugated Car Wheels, or Wheels with any form of Spokes or Disks, by a new process which prevents all strain on the metal, such as is is produced in all other chilled wheels, by the manner of casting and cooling. By this new method of manufacture, the hubs of all kinds of wheels may be made whole—that is, without dividing them into sections—thus rendering the expense of banding unnecessary; and the wheels subjected to this process will be much stronger than those of the same size and weight, when made in the ordinary way.

A. WHITNEY & SON,
Willow St. below 13th,
Nov. 10, 1847. [tf.] Philadelphia, Penna.

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent*.

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co Boston. ja45

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York will be punctually attended to.

HENRY BURDEN, *Agent*

Spikes are kept for sale, at Factory Prices, by & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Jarviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufcturing so as to keep pace with the daily increasing demand.

ja45

RAILROAD IRON—800 TONS OF THE latest and most improved pattern of T Rail—weighing about 60 lbs. to the yard, for sale by

BOORMAN, JOHNSTON & CO.,
1m ja 1 119 Greenwich St., New York.

BOSTON AND MAINE RAILROAD. Upper Route, to Portland and the East.

WINTER ARRANGEMENT,

Commencing October 4, 1847.

PORTLAND TRAINS.

Leave Boston at 7 A.M. and 2½ P.M.
Leave Portland at 7½ A.M. and 3 P.M.

GREAT FALLS TRAIN.

Leave Boston at 3½ P.M.
Leave Great Falls at 6½ A.M.

LAWRENCE TRAINS.

Leave Boston at 7, 11½ a.m., 2½, 3½, 5½ p.m.
Leave Lawrence at 7, 8½, 11 a.m., 3½, 6½ p.m.

HAVERHILL TRAINS.

Leave Boston at 11½ A.M. and 5½ P.M.
Leave Haverhill at 7 A.M. and 3½ P.M.

READING TRAINS.

Leave Boston at 8½ A.M. and 6½ P.M.
Leave Reading at 6·50 A.M. and 1½ P.M.

MEDFORD BRANCH TRAINS.

Leave Boston at 7½, a.m., 12 m., 2½, 4½, 6 p.m.
Leave Medford at 7, 8½, a.m., 1½, 3½, 5 p.m.

The Depot in Boston is on Haymarket Square.
1y31 CHAS. MINOT, *Super't.*

BOSTON AND PROVIDENCE RAILroad. Passenger Notice. Summer Arrangement. On and after Monday, April 5, 1847, the Passenger Trains will run as follows:

Steamboat train via Stonington—Leaves Boston every day, except Sunday, at 5 o'clock p.m.

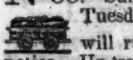
Accommodation Trains—leave Boston at 7 and 10½ a.m. and 4 p.m., and Providence at 7½ and 10½ a.m. and 4½ p.m.

Dedham trains, leave Boston at 8 a.m., 12½, 3½, 6½ and 9 p.m., Leave Dedham at 7 and 9½ a.m. and 2½, 5½ and 8 p.m.

Stoughton trains, leave Boston at 11½ a.m. and 5½ p.m. Leave Stoughton at 7 10 a.m. and 3½ p.m.

All baggage at the risk of the owners thereof.
25tf W. RAYMOND LEE, *Sup't.*

NEW YORK & HARLEM RAILROAD CO.—Summer Arrangement.—On and after Tuesday, June 1st, 1847, the cars will run as follows, until further notice. Up trains will leave the City Hall for—



Yorkville, Harlem and Morrisana at 6, 8 and 11 a.m., 2, 2 30, 5 and 7 p.m.

For Morrisiana, Fordham, Williams' Bridge, Tuckahoe, Hart's Corner and White Plains, 7 and 10 a.m., 4 and 5 30 p.m.

For White Plains, Pleasantville, Newcastle, Mechanicsville and Croton Falls, 7 a.m. and 4 p.m. Freight train at 1 p.m.

Returning to New York, will leave—

Morrisiana and Harlem, 7, 8 20 and 9 a.m., 1, 3, 4 30, 6, 6 28 and 8 p.m.

Fordham, 8 08 and 9 15 a.m., 1 20 and 6 15 p.m.

Williams Bridge, 8 and 9 08 a.m., 1 10, 6 08 p.m.

Tuckahoe, 7 38 and 8 25 a.m., 12 55 and 5 52 p.m.

White Plains, 7 10 and 8 35 a.m., 12 50, 5 35 p.m.

Pleasantville, 8 15 a.m. and 5 15 p.m.

Newcastle, 8 a.m. and 5 p.m.

Mechanicsville, 7 18 a.m. and 4. 48 p.m.

Croton Falls, 7 30 a.m. and 4 30 p.m. Freight train at 10 a.m.

Freight train will leave 32d street for Croton Falls and intermediate places, 4 a.m and City Hall 1 p.m.

Returning, leave Croton Falls 10 a.m. and 9½ p.m.

ON SUNDAYS, the trains will run as follows:

Leave City Hall for Croton Falls, 7 a.m, 4 p.m.

Croton Falls for City Hall, 7 30 a.m., 4 30 p.m.

Leave City Hall for White Plains and intermediate places, 7 and 10 a.m. 4 and 5 30 p.m.

White Plains for City Hall, 7 10 and 8 35 a.m., 12 30 and 5 35 p.m.

Extra trains will be run to Harlem, Fordham and Williams Bridge on Sunday, when the weather is fine.

The trains to and from Croton Falls will not stop on N. York island, except at Broome st. and 32d st.

A car will preceed each train 10 minutes to take up passengers in the city.

Fare from New York to Croton Falls and Somers $1, to Mechanicsville 87½c., to Newcastle 75c., to Pleasantville 62½c. to White Plains 50c. 25tf

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CONCORD RAILROAD.—PASSENGER Trains in connection with the Lowell & Nashua Railroads, run daily between

Concord and Boston, Sundays excepted, as follows. viz:

Leave Concord at 5 40 and 11 5 a.m. and 3 15 p.m.

Leave Boston at 7 and 11 a.m. and 5 p.m.

This road runs by Nashua and Manchester to Concord N. H., where it connects with the Northern railroad, extending from Concord to the mouth of White river in Vermont, 18 miles of which road, to Franklin, is now opened, and the remainder is rapidly completing.

It is the direct route to Central and northern New Hampshire, and to Montpelier, Burlington, and other towns in northern Vermont, and has a greater proportion of railroad conveyance in those directions than any other line.

It is also the British Steam Mail Line, and the nearest route from Boston to the Canadas. Numerous stages connect with all parts of the road.

For further information, apply at B. P. Cheney & Co.'s Express office, No. 8 Court St., and Averill & Dean, No. 15 Elm St.

All passengers' baggage should be properly marked, and when valued at more than $50, notice must be given, and extra charges paid, or no loss beyond such amount will be allowed.
26tf N. G. UPHAM, Supt.

NORWICH AND WORCESTER RAILRoad. Summer Arrangement. Change of Hours. Commencing on

Wednesday, April 21, 1847.

Accommodation Trains, daily, (except Sunday.) Leave Norwich, at 6 a. m., and 4½ p. m. Leave Worcester, at 8½ a. m., and 4½ p. m.

☞ The morning Accommodation Trains from Norwich, and from Worcester, connect with the trains of the Boston, and Worcester and Western railroads each way.

The Evening Accommodation Train from Worcester connects with the 2½ p.m. train from Boston.

New York Train via Steamboat—Leave Norwich for Boston, every morning, except Monday, on the arrival of the stamboat from New York, stopping at Norwich and Danielsonville.

Leave Worcester for New York, upon the arrival of the train from Boston, at about 6½ p.m., daily, except Sunday, stopping at Danielsonville and Norwich.

Freight Trains daily each way, except Sunday.—Leave Norwich at 7, and Worcester at 6 30 a. m. Special contracts will be made for cargoes, or large quanties of freight, on application to the superintendent.

☞ *Fares are Less when paid for Tickets than when paid in the Cars.* ☜
32 1v J W. STOWELL, Sup't

LONG ISLAND RAILROAD COMPANY. Summer Arrangement. On and after Monday

May 1st, trains will run as follows, except Sundays:

Leave—Brooklyn at 9 1-2 a.m. for Farmingdale, 1 1-2 p.m. for Greenport, at 4 p.m. for Farmingdale.

Leave Farmingdale at 7 a.m for Brooklyn, 12 m. do., at 3 1-4 do. do.

Leave Greenport at 8 1-2 a.m. for Brooklyn.

Leave Jamaica at 8 a.m. for Brooklyn, at 1 p.m. do., at 4½ p.m do.

On Saturdays, a train will leave Brooklyn for Yaphank, at 4 p.m. Leave Yaphank, on Mondays for Brooklyn at 5 1-2 a.m.

On and after May 15th, and until September 1st, 1847, a train will leave Jamaica at 7 a.m. for Brooklyn—leave Brooklyn at 6 p.m. for Jamaica, and will land and receive passengers at any place between Brooklyn and Jamaica.

On Sundays—leave Brooklyn at 8 1-2 a.m. for Farmingdale; leave Farmingdale at 4 p. m. for Brooklyn.

Freight Trains—leave Brooklyn at 10 a.m. for Greenport; leave Greenport at 12 m. for Brooklyn.

Baggage crates will be in readiness at the foot of Whitehall street, to receive baggage for the several trains, 30 minutes before the hour of starting from the Brooklyn side.

The steamer "Statesman," Captain Nash, leaves Greenport for Sag Harbor on the arrival of the Accommodation train from Brooklyn.
15tf DAVID S. IVES Sup't.

NEW YORK AND PHILADELPHIA RAILroad line—direct. Via Newark, New Brunswick, Princeton, Trenton,

and Bristol. (Through in six hours.) Leaving New York daily from the foot of Liberty street.

Morning line.....9 o'clock a.m.
Mail pilot line.....4½ " p.m.

The lines proceed direct to Taconi without change of cars, and thence by the new steamer, "John Stevens," to Philadelphia.

FARE BETWEEN NEW YORK & PHILA.
First class cars.....$4 00
Second class cars..... 3 00

Passengers will procure their *Tickets* at the office foot of Liberty st., where a commodious steamboat will be in readiness with Baggage-crates on board.

Fifty pounds of baggage will be allowed to each passenger in this line, and passengers are expressly prohibited from taking anything as baggage but their wearing apparel, which will be at the risk of the owner.

Philadelphia Baggage-crates are conveyed from city to city, without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for ladies' use.

Returning, the lines leave Philadelphia from the foot of Walnut st. at 9 a.m, and 4 1-2 p.m.

The lines for Baltimore leave Philadelphia daily, except Sundays, at 8½ a. m., and 4 p. m., and Sundays only at 4 p.m.—being a continuation of the line from New York. 25tf

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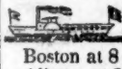
WESTERN RAILROAD.—ON AND AFter Monday, April 5, 1847, the passenger trains will leave daily, Sundays excepted, as follows:



Boston at 8 a. m. and 4 p. m. for Albany.

Albany at 7 1-4 a. m. and 5 p. m. for Boston.

Springfield at 8 1-2 a. m. and 1 p. m. for Albany

Springfield at 8 1-2 a. m. and 1 1-2 and 3 p. m. (or on arrival of the train from New York) for Boston.

Day line to New York, via Springfield.—The steamboat train leaves Boston at 6 a. m., and arrives in New York at 7 p. m., by the steamboats Traveller, New York, or Champion. Returning, leaves New York at 6 1-4 a. m., and arrives in Boston at 7 p. m.

Night line to New York.—Leaves Boston at 4 p. m., and arrives in New York at 5 a. m.

Albany and Troy.—Leave Boston at 8 a. m., Springfield at 1 p. m., and arrive in Albany at 6 p. m.; or, leave Boston at 4 p.m., Springfield next morning at 8 1-2, and arrive in Albany at 1 1-2 p.m.

The Troy trains connect at Greenbush.

The trains for Buffalo leave at 7½ a.m. and 7 p.m.

For Northampton, Greenfield, etc.—The trains of the Connecticut River Railroad leave Springfield at 8 1-4 a.m., 1 and 3 p.m., and passengers proceed directly on to Bratleboro', Windsor, Bellows Falls, Walpole, Hanover, Haverhill, etc.

For Hartford.—The trains leave Springfield on the arrival of the trains from Boston.

The trains of Pittsfield and North Adams Railroad leave Pittsfield on the arrival of the trains from Boston.

N. B.—No responsibility assumed for any baggage by the passenger trains, except for wearing apparel not exceeding the value of fifty dollars, unless by special agreement.

JAMES BARNES, Sup't and Eng'r.
C. A. SEAD, Agent, 27 State street, Boston.

GREAT SOUTHERN MAIL LINE! VIA Washington city, Richmond, Petersburg, Weldon and Charleston, S. C., direct to New Orleans. The only Line which carries the Great Southern Mail, and Twenty-four Hours in advance of Bay Line, leaving Baltimore same day.

Passengers leaving New York at 4½ P.M., Philadelphia at 10 P.M., and Baltimore at 6½ A.M., proceed without delay at any point, by this line, reaching Richmond in *eleven*, Petersburg in *thirteen and a half hours*, and Charleston, S. C., in *two days* from Baltimore.

Fare from Baltimore to Charleston.....$21 00
" " " Richmond..... 6 60

For Tickets, or further information, apply at the *Southern Ticket Office*, adjoining the *Washington Railroad Office*, Pratt street, Baltimore, to
1y14 STOCTON & FALLS, Agents.

NEW YORK AND ERIE RAILROAD LINE SUMMER ARRANGEMENT. For passengers, twice each way daily, (except Sunday,) leave New York from the foot of Duane St. at 7 o'clock, A. M. and at 4 o'clock, P. M. by steamboat, for Piermont, thence by cars to Ramapo, Monroe, Chester, Goshen, Middletown, Otisville, and the intermediate stations.

The return trains for New York will leave Otisville at 6 30, A. M. and 4 15, P. M.; Middletown at 7 A. M. and 4 40, P. M.; Goshen at 7 22, A. M. and 5 3, P. M.; Chester at 7 35, A. M. and 5 18, P. M.

Fare between New York and Otisville, $1 50; way-fare in proportion.

For Milk—Leave Otisville at 5½ o'clock, morning and evening.

For Freight—The barges "Samuel Marsh and "Henry Suydam, Jr." will leave New York (from the foot of Duane St.) at 5 o'clock, P. M. daily (except Sundays.)

No freight will be received in New York after 5 o'clock, P. M.

Freight for New York will be taken by the trains leaving Otisville at 10½ o'clock, A. M.; Middletown at 11½, A. M.; Goshen at 12½, P. M.; Chester at 1 o'clock, P. M., etc., etc.

For farther particulars, apply to J. F. CLARKSON, Agent, corner of Duane and West Sts., New York, or to S. S. POST, Superintendent Transportation, Piermont.

21tf H. C. SEYMOUR, Sup't.

LITTLE MIAMI RAILROAD COMPANY. Fall and Winter Arrangement, 1847. On and after Monday, September 20th, until further notice, a Passenger train will run as follows:

Leave Cincinnati daily at 9 A. M., for Milford, Foster's Crossing, Deerfield, Morrow, Fort Ancient, Freeport, Waynesville, Spring Valley, Xenia, Yellow Springs, and Springfield. Returning, will leave Springfield at 4½ a.m. Upward train arrives at Springfield at 2½ p.m. Downward train arrives at Cincinnati at 10½ a.m.

Freight trains will run each way daily.

Messrs. Neil, Moore & Co. are running the following stage lines in connection with the road:

A daily line from Xenia to Columbus and Wheeling, carrying the great Eastern mail.

Daily lines from Springfield to Columbus, Zanesville and Wheeling. Also to Urbana and Bellefontaine.

A line of Hacks runs daily in connection with the train between Deerfield and Lebanon.

Passengers leaving for New York and Boston, arrive at Sandusky city via Urbana, Bellefontaine & the Mad River and Lake Erie railroad, in 27 hours, including several hours' sleep at Bellefontaine. To the same point via Columbus, Delaware, Mansfield and the Mansfield and Sandusky city railroad, is 32 hours. Distance from Cincinnati to Springfield by railroad.....84 miles.

From Springfield to Bellefontaine by stage, over a good Summer road.....32 "

From Bellefontaine to Sandusky city by railroad.....102 "

Fare—From Cincinnati to Lebanon	....	$1	00
" " " Xenia	.....	1	50
" " " Springfield	..	2	00
" " " Columbus	...	4	00
" " " Sundusky city		7	00

The Passenger trains runs in connection with Strader & Gorman's line of Mail Packets to Louisville.

Tickets can be procured at the Broadway Hotel, Dennison House, or at the Depot of the Company on East Front street.

Further information and through tickets for the Stage lines, may be procured at P. Campbell, Agent on Front street, near Broadway.

The company will not be responsible for baggage beyond 50 dollars in value, unless the same is returned to the conductor or agent, and freight paid at of a passage for every $500 in value over that amount.

47tf W. H. CLEMENT, *Sup't.*

BALTIMORE AND SUSQUEHANNA Railroad.—Reduction of Fare. Morning and Afternoon Trains between Baltimore and York.—The Passenger trains run daily, except Sunday, as follows:

Leaves Baltimore at	.....	9	a.m. and	3½ p.m.
Arrives at	.....	9	a.m. and	6½ p.m.
Leaves York at	.....	5	a.m. and	3 p.m.
Arrives at	.....	12½	p.m. and	8 p.m.
Leaves York for Columbia at	..	1½	p.m. and	8 a.m.
Leaves Columbia for York at	..	8	a.m. and	2 p.m.

FARE.

Fare to York	.....	$1 50
" Wrightsville	.....	2 00
" Columbia	.....	2 12½

Way points in proportion.

PITTSBURG, GETTYSBURG AND HARRISBURG.

Through tickets to Pittsburg via stage to Harrisburg	$9
Or via Lancaster by railroad	10
Through tickets to Harrisburg or Gettysburg	3

In connection with the afternoon train at 3½ o'clock, a horse car is run to Green Spring and Owing's Mill, arriving at the Mills at.....5½ p.m.

Returning, leaves Owing's Mills at.....7 a.m.

D. C. H. BORDLEY, *Sup't.*

31 1y Ticket Office, 63 North st.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and ma. 9. from Frankfort, other hours as above. 351y

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CENTRAL AND MACON AND WESTERN Railroads, Ga.—These Roads with the Western and Atlantic Railroad of the State of Georgia, form a continuous line from Savannah to Oothcaloga, Ga., of 371 miles, viz:

	Miles.
Savannah to Macon—Central Railroad	190
Macon to Atlanta—Macon and Western	101
Atlanta to Oothcaloga—Western and Atlaniic	80

Goods will be carried from Savannah to Atlanta and Oothcaloga, at the following rates, viz:

	To Atlanta.	To Oothcaloga.
On Weight Goods—Sugar, Coffee, Liquor, Bagging, Rope, Butter, Cheese, Tobacco, Leather, Hides, Cotton Yarns, Copper, Tin, Bar & Sheet Iron, Hollow Ware & Castings	$0 50	$0 75
Flour, Rice, Bacon in Casks or boxes, Pork, Beef, Fish, Lard, Tallow, Beeswax, Mill Gearing, Pig Iron and Grind Stones	0 50	0 62½
On Measurement Goods—Boxes of Hats, Bonnets and Furniture, per cubic foot	0 20	0 26
Boxes and Bales of Dry Goods, Saddlery, Glass, Paints, Drugs and Confectionary, per cubic foot	0 20 pr. 100lbs.	35
Crockery, per cubic foot	0 15 " "	35
Molasses and Oil, per hhd., (smaller casks in proportion).	9 00	12 50
Ploughs, (large,) Cultivators, Corn Shellers, and Straw Cutters, each	1 25	1 50
Ploughs, (small,) and Wheelbarrows	0 80	1 05
Salt, per Liverpool Sack	0 70	0 95

Passage—Savannah to Atlanta, $10; Children, under 12 years of age, half price, Savannah to Macon, $7.

☞ Goods consigned to the subscriber will be forwarded free of Commissions.

☞ Freight may be paid at Savannah, Atlanta or Oothcaloga.

F. WINTER, *Forwarding Agent, C. R. R.*

Savannah, Aug. 15th, 1846. 1y34

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13y1

CENTRAL RAILROAD—FROM SAVANNAH to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and Freight. Rates of Passage, $8 00. Freight—

On weight goods generally	50 cts. per hundred.
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil)	$1 50 per barrel.
On brls. dry (except lime)	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery	40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons	$5 00 per hhd.
On molasses and oil	$6 00 per hhd.

Goods addressed to F. Winter, Agent, forwarded free of commission. THOMAS PURSE,

y40 Gen'l. Sup't. Transportation.

SOUTH CAROLINA RAILROAD.—A Passenger Train runs daily from Charleston, on the arrival of the boats from Wilmington, N. C., in connection with trains on the Georgia, and Western and Atlantic Railroads—and by stage lines and steamers connects with the Montgomery and West Point, and the Tuscumbia Railroad in N. Alabama.

Fare through from Charleston to Montgomery daily	$26 50
Fare through from Charleston to Huntsville, Decatur and Tuscumbia	22 00

The South Carolina Railroad Co. engage to receive merchandize consigned to their order, and to forward the same to any point on their road; and to the different stations on the Georgia and Western and Atlantic railroad; and to Montgomery, Ala., by the West Point and Montgomery Railroad.

r25 JOHN KING, Jr, *Agent.*

THE WESTERN AND ATLANTIC Railroad.—This Road is now in operation to Oothcaloga, a distance of 80 miles, and connects daily (Sundays excepted) with the Georgia Railroad.

From Kingston, on this road, there is a tri-weekly line of stages, which leave on the arrival of the cars on Tuesday, Thursday and Saturday, for Warrenton, Huntsville, Decatur and Tuscumbia, Alabama, and Memphis, Tennessee.

On the same days, the stages leave Oothcaloga for Chattanooga, Jasper, Murfreesborough, Knoxville and Nashville, Tennessee.

This is the most expeditious route from the east to any of these places.

CHAS. F. M. GARNETT,
Chief Engineer.

Atlanta, Georgia, April 16th, 1846 1y1

PHILADELPHIA AND READING RAILROAD.—Passenger Train Arrangement for **1848.**

A Passenger Train will leave Philadelphia and Pottsville daily, except Sundays, at 9 o'clock A. M.

The Train from Philadelphia arrives at Reading at 12 18 M.

The Train from Pottsville arrives at Reading at 10 43 A. M.

Fares.	Miles.	No. 1.	No. 2.
Between Phila. and Pottsville,	92	$3 60 and	$3 00
" " Reading,	58	2 25 and	1 90
" Pottsville "	34	1 40 and	1 20

Five minutes allowed at Reading; and three at other way stations.

Passenger Depot in Philadelphia corner of Broad and Vine streets. 8tf

PHILADELPHIA, WILMINGTON & BALTIMORE RAILROAD.—1848.

Winter Arrangement.

Philadelphia for Baltimore...8½ a.m. and 4 p.m.
Baltimore for Philadelphia...9 a.m. and 8 p.m.
Connecting with Mail Lines North, South & West.

On Sundays, only the 4 P. M. Lines run.

The Boat Lines, via Newcastle & Frenchtown R.R.
Leave Philadelphia at 3½ p.m. } No line on Sun-
Leave Baltimore at 3 p.m. } day.

Accommodation Trains between Philadelphia & Wilmington.—Philadelphia to Wilmington, 8½ a.m., *mail*, 1½ p.m., 4 p.m., *mail*. From Wilmington to Philadelphia, 8 a.m., 1 p.m., *mail*, 6 p.m., 12½ a.m., *night mail*.

1. R. TRIMBLE,
2tf *Engineer and General Superintendent.*

GEORGIA RAILROAD. FROM AUGUSTA to ATLANTA—171 MILES.

AND WESTERN AND ATLANTIC RAILROAD FROM ATLANTA TO DALTON, 100 MILES.

This Road in connection with the South Carolina Railroad and Western and Atlantic Railroad now forms a continuous line, 408 miles in length, from Charleston to Dalton (Cross Plains) in Murray county, Ga.—32 miles from Chattanooga, Tenn.

RATES OF FREIGHT.		Between Augusta and Dalton.	Between Charleston and Dalton.
		271 miles.	408 miles.
1st class.	Boxes of Hats, Bonnets, and Furnature, per cubic foot	$0 18	$0 28
2d class.	Boxes and Bales of Dry Goods, Sadlery, Glass, Paints, Drugs and Confectionary, per 100 lbs.	1 00	1 50
3d class.	Sugar, Coffee, Liquor, Bagging, Rope, Cotton Yarns, Tobacco, Leather, Hides, Copper, Tin, Feathers, Sheet Iron, Hollow Ware, Castings, Crockery, etc.	0 60	0 85
4th class.	Flour, Rice, Bacon, Pork, Beef, Fish, Lard, Tallow, Beeswax, Bar Iron, Ginseng, Mill Gearing, Pig Iron, and Grindstones, etc	0 40	0 65
	Cotton, per 100 lbs	0 45	0 7
	Molasses, per hogshead	8 50	13 50
	" " barrel	2 50	4 25
	Salt per bushel	0 18	
	Salt per Liverpool sack	0 65	
	Ploughs, Corn Shellers, Cultivators, Straw Cutters, Wheelbarrows	0 75	1 50

German or other emigrants, in lots of 20 or more, will be carried over the above roads at 2 cents per mile.

Goods consigned to S. C. Railroad Co. will be forwarded free of commissions. Freight payable at Dalton.

F. C. ARMS,
Sup't. of Transportation.
Augusta, Ga., July 15, 1847. 44-1y

DAY, CROSKY & ROSS,
COMMISSION MERCHANTS,
57 THREADNEEDLE STREET, LONDON.
13 ORCHARD PLACE, SOUTHAMPTON.
SHIPPING & COMMISSION AGENTS
FOR
PASSENGERS, SPECIE, GOODS, PARCELS, etc.

☞ To all parts of the United States, North and South America, West Indies, India, [overland or otherwise,] Constantinople, Egypt, the Mediterranean, the Peninsula, and all parts of France—via Havre.

Agents at Cowes for the Ocean Steam Navigation of New York.

☞ Persons wishing to transact business with Messrs. D. C. & R., will please apply to the subscriber, who will make cash advances on consignments to their address.

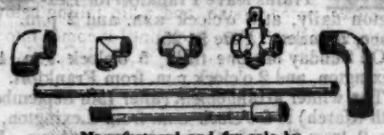
July 31—1y ROBERT GRACIE.
New York.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER FEEDS.



Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

THE SUBSCRIBER has on hand a good assortment of his best Leveling and Surveying Instruments, among them his improved Compass for taking angles without the needle—also Bells, suitable for Churches, Railroad Depots, etc. ANDREW MENEELY.
West Troy, May 12, 1847. 1y*21

LAP—WELDED
WROUGHT IRON TUBES
FOR
TUBULAR BOILERS,
FROM 1 1-4 TO 6 INCHES DIAMETER,
and
ANY LENGTH, NOT EXCEEDING 17 FEET.

These Tubes are of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine and other Steam Engine Boilers.

THOMAS PROSSER,
Patentee,
28 Platt street, New York.

LAWRENCE'S ROSENDALE HYDRAulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight paper barrels, by JOHN W. LAWRENCE,
142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

DEAN, PACKARD & MILLS,
MANUFACTURERS OF ALL KINDS OF
RAILROAD CARS,
SUCH AS
PASSENGER, FREIGHT AND CRANK CARS,
— ALSO —
SNOW PLOUGHS AND ENGINE TENDERS OF VARIOUS KINDS.
CAR WHEELS and AXLES fitted and furnished at short notice; also, STEEL SPRINGS of various kinds; and
SHAFTING FOR FACTORIES.

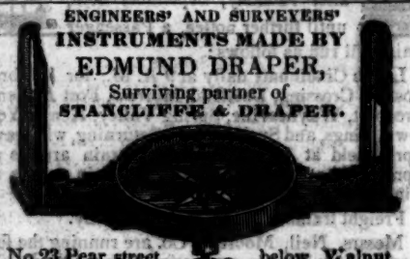
☞ *The above may be had at order at our Car Factory,*
REUEL DEAN,
ELIJAH PACKARD, } SPRINGFIELD, MASS.
ISAAC MILLS, 1y48

LAP-WELDED WROUGHT IRON TUBES for Tubular Boilers, from 1¼ to 15 inches diameter, and any length not exceeding 17 feet—manufactured by the Caledonian Tube Company, Glasgow, and for sale by

IRVING VAN WART,
12 Platt street, New York.
JOB CUTLER, Patentee.

These Tubes are extensively used by the British Government, and by the principal Engineers and Steam Marine and Railway Companies in the Kingdom. 38tf

ENGINEERS' AND SURVEYERS'
INSTRUMENTS MADE BY
EDMUND DRAPER,
Surviving partner of
STANCLIFFE & DRAPER.



No 23 Pear street, below Walnut,
1y10 near Third, Philadelphia.

AMERICAN RAILROAD JOURNAL.
OFFICE AT THE FRANKLIN HOUSE,
105 Chestnut Street,
PHILADELPHIA, PA.

This is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

TERMS.—Five Dollars a year, *in advance.*

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
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One square " "	1 00
Professional notices per annum	5

☞ LETTERS and COMMUNICATIONS for this Journal may be directed to the *Editor,*
D. K. MINOR.